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AFRICOM: Does Location Matter?

Sieber, Otto F.

Monterey, California. Naval Postgraduate School

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MONTEREY, CALIFORNIA

THESIS

AFRICOM: DOES LOCATION MATTER?

by

Otto F. Sieber III

March 2009

Thesis Advisor:	Letitia Lawson
Second Reader:	Tim Doorey

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AFRICOM: DOES LOCATION MATTER?

Otto F. Sieber III
Commander, United States Navy
B.S., University of Arizona, 1989

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March 2009

Author: Otto F. Sieber III

Approved by: Letitia Lawson, PhD
                 Thesis Advisor

                 Timothy Doorey, Captain, USN
                 Second Reader

                 Harold A. Trinkunas, PhD
                 Chairman, National Security Affairs

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ABSTRACT

President Bush established United States Africa Command (AFRICOM) in February 2007, which was commissioned fully operational on 1 October 2008. AFRICOM was established to increase DoD's efficiency and effectiveness for African operations and exercises and merged the responsibilities for the African continent into a single command in order to foresee and prevent crises in Africa that could threaten U.S. strategic interests. This merger joined responsibilities previously spread amongst the authorities of United States European Command (EUCOM), United States Central Command (CENTCOM), and United States Pacific Command (PACOM). AFRICOM's location discussion has centered on access to the continent and minimized other important considerations, such as access to the USG and policy development; supporting infrastructure, and the stability of where it will operate. A location decision is a complex decision; one that has long-term impact and therefore requires systematic analysis to make the process effective, efficient, and apolitical. This thesis follows several recent military efforts that utilize the business sector and associated applications to improve the decision effectiveness and efficiency. Specifically, it applies the Analytical Hierarchy Process (AHP) to the AFRICOM strategic headquarters location decision to provide a balanced, effective, and efficient review.

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I. INTRODUCTION

A. PURPOSE

Since the end of colonialism in Africa in the 1960s, United States foreign policy has relegated Africa to a lower level of importance than other regions and Department of Defense (DoD) priorities have reflected this. However, Africa has recently risen in strategic significance for several reasons, including terrorist threats, disease proliferation, and significant energy resources. As a result, President Bush established United States Africa Command (AFRICOM) in February 2007, which was commissioned fully operational on 1 October 2008. AFRICOM was established to increase DoD's efficiency and effectiveness for African operations and exercises and merged the responsibilities for the African continent into a single command in order to foresee and prevent crises in Africa that could threaten U.S. strategic interests. This merger joined responsibilities previously spread amongst the authorities of United States European Command (EUCOM), United States Central Command (CENTCOM), and United States Pacific Command (PACOM). In addition, DoD seeks to better integrate with other U.S. Agencies, such as the United States Department of State (DOS) and United States Agency for International Development (USAID).

The decision to locate the interagency command on the continent was first announced in February 2007 and was met with significant resistance from African governments, international governmental organizations and nations, and non-governmental organizations. Locating AFRICOM in Africa would be the first such posting of a unified combatant command (UCC) overseas during peacetime, where the nation is not actively (i.e., kinetically) fighting or defending U.S. interests in its intended Area of Responsibility (AOR). Only two UCCs have resided on foreign soil, and in both instances they were established as a result of armed intervention in the respective regions. First, United States Southern Command (SOUTHCOM) was officially established in

Panama in 1947[1] largely as a result of the need to defend the Panama Canal, and was moved to Miami, Florida in the late 1990s. Second, EUCOM was established in Germany to help rebuild the country during the aftermath of World War II and remains there to this day. In the face of resistance from African states, the decision has been taken to keep AFRICOM in Stuttgart, Germany for the time being. With diplomatic tussles over the location issue at the forefront, the costs and benefits associated with different location options have not been fully addressed. What location would maximize the U.S. Government's ability to successfully develop, promote, and execute coherent and consistent policy objectives with respect to African security and development? To address this question, one must weigh the variety of factors that have impact on a combatant command and its ability to support its mission.

B.   IMPORTANCE

Since the National Security Act of 1947 established the Unified Command Plan (UCP) which directs the combatant command structure there have been numerous changes made intended to increase its efficiencies and effectiveness. Many of these modifications dealt with overlaps in geographical or functional areas. Generally speaking, strategic commands create plans that aim to achieve long term objectives. Inherent in these plans is the need for leadership and operations to have access and reach to successfully engage at all required levels in support of directed objectives. Material requirements include, but are not limited to: air, land, and sea transport; and local infrastructure to support the staff, planners, and operators such as utilities, office space, and security. Political requirements are the procedural, legal, and relationship factors that may preclude reaching the objectives (e.g., sovereign government and non-governmental organization support and popular local support). Balancing these two requirements will provide the most complete assessment of alternative basing locations and ensure all considerations are weighed and weighted in support of strategic objectives. Establishing

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[1] SOUTHCOM has a history that dates back to 1905 when U.S. Forces were first put in place to secure the Panama Canal due to its strategic importance.

a strategic headquarters requires that this process be thorough, calculated, and lends itself to providing capable, consistent, and uninterrupted support to the operators.

C.   LITERATURE REVIEW

1.   Survey of Prior Work

AFRICOM provides a dedicated, focused organization to monitor African crises and operations through an integrated interagency command initially that DoD planned to be located on the continent as stated by Ms. Theresa Whelan, Deputy Assistant Secretary of Defense African Affairs.[2] These operations will include support to many on-going initiatives to include the African Growth and Opportunity Act (AGOA), Millennium Challenge Account (MCA), several counterterrorism (CT) programs, and the African Contingency Operations Training and Assistance (ACOTA); all of which will require direct interaction at an operational and tactical level in-country. AFRICOM's stated mission is:

> United States Africa Command, in concert with other U.S. government agencies and international partners, conducts sustained security engagement through military to military programs, military sponsored activities, and other military operations as directed to promote a stable and secure African environment in support of U.S. foreign policy.[3]

Initial official statements implied that the command could not meet these objectives unless it is located on the continent.[4] The later decision to keep the command in Stuttgart after African governments resisted a continental headquarters did not include a change of position on the relationship between location and ability to meet objectives. Rather,

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2 Theresa Whelan, "Transcript: U.S. to Establish New U.S. Africa Command (AFRICOM)," (Washington Foreign Press Center, 7 February 2007); Walter L. Sharp, "DoD News Briefing with Mr. Henry and Lt. Gen Sharp from the Pentagon," United States Department of Defense, 7 February 2007, www.eucom.mil (accessed 12 June 2007); William E. Ward, "General William 'Kip' Ward (USA) is Interviewed on PBS's 'The Charlie Rose Show,'" interview by Charlie Rose (PBS, 14 November 2007).

3 William E. Ward, "USAFRICOM Briefing," 30 April 2008, http://www.africom.mil/pdfFiles/AFRICOM_Deputies_Cmb_Brf_Industry_Day_2008_04_30.pdf accessed 19 October 2008).

4 Whelan, "U.S. to Establish New U.S. Africa Command," 2007. Ward, "USAFRICOM: About Africom," http://www.africom.mil/AboutAFRICOM.asp (accessed 11 January 2008).

AFRICOM will continue a "multiyear process " of deliberation with African partners, which it still hopes will end with a headquarters on the continent.[5]

One of the primary reasons given by the Department of Defense for the conclusion that AFRICOM's success depends on an African continental location is that it needs to be there to gain greater understanding of African culture (or cultures), and to have access to its intended partners in order to enable the U.S. government, businesses, and other supporting organizations to focus on acceptable and complimentary roles in establishing peace and security in Africa.[6]   As time progressed and more African governments resisted the idea of having a U.S. military command located on the continent through public statements and deliberations, the high political costs of a forward location became more evident and Stuttgart, Germany became a more attractive location for the short term.   The already existing headquarters type infrastructure available there required only minor modifications; Germany is secure; and it has great access to transportation. Still, it remains a temporary headquarters until 2012 when the final location decision is expected.[7]

Critics of AFRICOM fall into two camps: those who believe the command is entirely unnecessary, counterproductive, or will militarize the continent yet again; and those who support the creation of the command but believe that it should not be located in Africa. Both arguments focus on the potential political impacts. The first group consists mainly of academics and policy analysts who argue that U.S. interests in oil and terrorism are largely inconsistent with the interests of the African countries and that

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5 AFRICOM FAQs, "Questions and Answers about AFRICOM," http://www.africom.mil/africomFAQs.asp (accessed 19 October 2008); Ward, "USAFRICOM: About Africom."

6 Ward, "The Charlie Rose Show." "Questions and Answers about AFRICOM."

7 John Vandiver, "AFRICOM to Remain in Stuttgart until 2012," *Stars and Stripes: Mideast Edition,* 1 November 2008, www.stripes.com (accessed 2 February 2009).

AFRICOM will likely result in a negative impact on Africa. [8] One such fierce critic goes so far as to liken any presence to the Christian Crusades.[9] The criticisms focus mainly on a view that the U.S. desires to control the flow of African oil, which in turn is fueling a militarization of Africa via AFRICOM in general and its forward location in particular.[10] This camp often argues that U.S. counterterrorism initiatives are intended to establish a military presence in the region that will ultimately be used to secure smooth flowing oil.[11] A small element within this group even suggests that the U.S. masks its strategic interest in oil in ostensible humanitarian initiatives such as conflict resolution in Darfur and support for HIV/AIDS relief.[12] They state that the U.S. promises a great deal on the humanitarian stage, yet delivers little, while at the same time increasing military engagement in the region and demonstrating imperialist tendencies. From their perspective, AFRICOM's presence on the continent supports misguided U.S. policy objectives.

The second camp of critics focuses specifically on the location issue. AFRICOM's location has been a point of contention since the February 2007 announcement when initial statements indicated that the command must be on the continent for purposes of engagement.[13] This camp is made up largely of African

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8 Jeremy Keenan, "Terror in the Sahara: the Implications of US Imperialism for North & West Africa," *Review of African Political Economy*, No 101, 2004, 478; David Gutelius, "US Creates African Enemies Where None were Before," *Christian Science Monitor*, July 11, 2003, 11; "Commentary Questions US Approach to fighting Terrorism in Africa," 10 September 2005, translated by FBIS, www.opensource.gov AFP20050914623002 (accessed 25 May 2006); Jason Motlagh, "US opens new war front in North Africa," *Asia Times Online*, 14 June 2006, accessed at http://www.atimes.com/atimes/Front_Page/HF14Aa01.thml on 7 July 2006; David Gutelius, "War on Terror and Social Networks," *Islam, Society & the State Review* 17, Spring 2006, 39.

9 Gutelius, "War on Terror and Social Networks," 39.

10 Michael T. Klare and Daniel Volman, "Africa's Oil and American National Security," *Current History*, May 2004; Cyril Obi, "Oil, US Global Strategy and the Challenge of Development in West Africa," CODESRIA Bulletin Nos. 3 & 4, 2005, 38-41; Salih Booker and Ann-Louise Colgan, "Africa Policy Outlook 2006," *Foreign Policy in Focus*, 16 March 2006, http://www.fpif.org/fpiftxt/3157 (accessed 7 May 2006); B Real, "Understanding AFRICOM: A Contextual Reading of Empire's New Combatant Command," *Moon of Alabama*, February 2007, http://www.moonofalabama.org/images/understandingAFRICOM-bReal.pdf (accessed 26 June 2007).

11 Jim Lobe, "Group Slams Janus Face of U.S. Policy," *Inter Press Service News Agency*, 9 March 2006, http://www.ipsnews.net/africa/nota.asp?idnews=32447 (accessed 7 May 2006); Klare and Volman, 227-228.

12 Booker and Colgan, "Africa Policy Outlook."

13 Whelan, "U.S. to Establish New Africa Command."

governments, including those in Nigeria, Ethiopia, South Africa, Morocco, Ghana, among a host of others.[14] Then, South African Defense Minister Mosiuoa Lekota said before AFRICOM was established as a sub-unified command that it "should stay out of the African continent."[15] For these governments locating AFRICOM on the continent suggests a U.S. desire to gain a military foothold in the region for the purposes of controlling oil and countering terrorism operations.[16] However, most of the governments do support AFRICOM's focused and consolidated security assistance efforts.[17] Thus, one can infer an acceptance of AFRICOM as a step forward, as long as it is located outside the continent.

This situation creates a conundrum. AFRICOM leaders believe that they must have a forward location to be effective, while potential hosts find the command threatening only if it is forward located. While AFRICOM leaders seemed puzzled by the response from African governments, the location or relocation of previous UCCs met with similar support and criticisms.[18] More importantly, while logic of the preference for forward location is sound, there is no evidence that it is supported by a systematic cost-benefit analysis.

In the broader literature on command location, supporters of a "within the AOR location " focus on the access that a forward located command have to its intended

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14 Deane-Peter Baker, "The Americans Are Already Here," *Institute for Security Studies*, 16 August 07, www.iss.org.za (accessed 16 November 2007); Jonathan Paye-Layeleh, "West African Military Chiefs Denounce Africom," *Mail & Guardian Online*, 7 November 2007, www.mg.co.za (accessed 16 November 2007).

15 "Lekota: Africom Should Stay Off The Continent," *Mail & Guardian Online*, 29 August 2007, www.mg.co.za (accessed 16 November 2007).

16 Daniel Gordon, "The Controversy over Africom," BBC Online, 3 October 2007; Associated Press, "US AFRICOM Headquarters to remain in Germany for "Foreseeable Future," International Herald Tribune, 19 February 2008, at http://www.iht.com/articles/ap/2008/02/19/africa/AF-GEN-US-Africa-Command.php (accessed 1 March 2009); Paye-Laylah.

17 "Africom Should Stay Off the Continent."

18 Paul De La Garza, "Zinni: CentCom Should Stay Put," *St. Petersburg Times*, 22 September 2002, at http://billnelson.senate.gov/news/details.cfm?id=244591& (accessed 12 September 2006); J.T. Ward, "Puerto Rican Group Says No to SouthCom," *St. Petersburg Times*, 29 March 1995, 5B; John Otis, "Panamanians Seek Pact Change to Maintain U.S. Bases," *The Washington Times*, Part A, WORLD, 5 September 1995, A11.

partner nation, geographical and cultural.[19]   They also believe that forward location demonstrates commitment to the region as well as better integrating planning and command over subordinates.[20] Supporters of an "outside the AOR " location focus on requirements for the smooth function of the command and interaction between the command and the effectiveness and subordination of planners and commanders in supporting policies as directed by Washington, DC. Zink argues that forward based personnel often implement operations and decisions in a manner that does not support administration policies as developed at higher levels of government.[21] For the most recent combatant command location decision, SOUTHCOM's move in 1997, a 1995 House Armed Services Committee hearing concluded that, while forward presence provides great convenience for military security assistance, the command's forward presence was not vital and potentially inhibited the growth of governance.[22]

2.   Major Questions and Arguments

This thesis argues that the best location is dependent on the consideration of all criteria that support the strategic requirements for a command to achieve its support of USG objectives. AFRICOM's location discussion has centered on access to the continent and minimized other important considerations, such as access to the USG and policy development; supporting infrastructure, and the stability of where it will operate. A location decision is a complex decision; one that has long term impact and therefore requires systematic analysis to make the process effective, efficient, and apolitical. The decision concerning AFRICOM's location is similar to that taken on the relocation of SOUTHCOM in 1997. Where best to establish the command to maximize the tools with which to most efficiently and effectively execute its strategic mission? In the case of

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19 Charles Wilhelm, "The Jane's Interview," Interview by Bryan Bender, *Jane's Defence Weekly*, Vol 030, Iss 024, 16 December 1998.

20 Richard M. Leighton, "Allied Unity of Command in the Second World War: A Study in Regional Military Organization," *Political Science Quarterly* 67, No 3, September 1952, 401; Harold Zink, "American Military Government Organization in Germany," *The Journal of Politics* 8, No 3, August 1946, 329-349.

21 Zink, "American Military Government Organization," 330-332.

22 U.S. Congress, House of Representatives, Committee on International Relations, Subcommittee on Western Hemisphere, "U.S. Strategic Interests in Panama" (Washington, 9 March 1995), 58-61.

SOUTHCOM, a balance of geographical, cultural, and access concerns was struck. SOUTHCOM's location was ultimately based on a consideration of the benefits and costs (both material and political) associated with alternative locations, including access, available infrastructure, political issues (e.g., local support, cultural reach), and operating costs.[23]   The process was long and political. It took nearly seven years, a hundred locations, and ultimately involved a team engaging with five finalist cities vying for the command. Once the decision was made, it took nearly two and a half years to affect the move. The final result was relocation to the most well rounded locale, Miami. This was not a forgone conclusion and the command could have been located in a city that did not offer the optimum balance of access and infrastructure to meet its operating requirements.

Since that time, the Department of Defense has become more willing to expand doctrine to include business type models in making complicated decisions. These include the mid-1990's Navy adaptation of Total Quality Leadership which modeled the business world's Total Quality Management and Secretary Donald Rumsfield's initiative to privatize and contract out various aspects of defense services such as base security and cleaning and landscaping in order to save money and increase the operational aspects of the services. Therefore, the use of business models to assess the effect of location on efficiency and effectiveness is consistent with previous DoD approaches and a parallel can be drawn between the two. DoD has stated that AFRICOM will use a holistic government approach to its staff structure and mission objectives. Several authors identify a holistic approach in determining the location of a strategic headquarters. They argue that the decision making process must include a quantitative and qualitative analysis in order to ensure consideration of all applicable factors surrounding a specific location.[24] Thus, this thesis adopts the Analytical Hierarchy Process (AHP), which has been used to select business headquarters locations, to the question of strategic location

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23 Charles D. Sykora, "Has the Time Come to Merge Southcom with Another Unified Command?" 18 May 2004, 10, 21.

24 Linda G.Tresslar, "Putting the Location Decision into a Business Context," *Area Development Online: Site and Facility Planning*, http://www.areadevelopment.com/siteSelection/nov06/locationDecision.shtml November 2006 accessed 28 October 2007); Jiaqin Yang and Huel Lee, "An AHP Decision Model for Facility Location Selection," *Facilities* 15, No 9/10 (September/October 1997), 241-254.

for military commands.[25]   Ultimately, "decision makers must select sites that will not simply perform well according to the current system state, but that will continue to be profitable for the facility's lifetime… "[26] In other words, strategic headquarters must be positioned in the most appropriate position possible at their inception.

D.   METHODOLOGY AND SOURCES

The AHP model is first adapted to command requirements and then applied to SOUTHCOM location decisions in 1947 and 1997 to test its validity. AFRICOM has the stated mission to support U.S. foreign policy in concert with other U.S. government agencies and international partners in the area of military-to-military security assistance programs and operations.[27] This is similar to mission statements and goals evinced by SOUTHCOM that have small sized U.S. military forces supporting USG strategic objectives focused on enhancing security and stability in the Western Hemisphere.[28] Based on its demonstrated performance in selecting a good location for SOUTHCOM, the model is then employed to recommend AFRICOM locations. The thesis uses mostly primary sources for data.

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[25] Yang and Lee, "AHP Decision Model," 242-244.

[26] Susan Hesse Owen & Mark S. Daskin, "Strategic Facility Location: A Review," *European Journal of Operational Research* 111, 1998, 423.

[27] Ward, "USAFRICOM Briefing."

[28] James Stavridis, U.S. House and Senate Armed Services Committee, "The Posture Statement of Admiral James Stavridis, United States Navy, Commander United States Southern Command Before the 110th Congress," 2008, 7-19.

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II. SETTING THE TONE: STRATEGIC LOCATION IS STRATEGIC LOCATION

A. DISSECTING THE BUSINESS APPROACH

Companies have many options to consider when they must decide where to locate main office and headquarters facilities - nearest to the market; within close proximity to resources; nearest to inexpensive labor; or somewhere in between. It is extremely important to select the best possible location, one that minimizes costs while maximizing benefits to achieve the company's goals while maintaining its fiscal health. Choosing a strategic location for a new combatant command involves many of the same risks and opportunities, plus the greater risk of potential loss of life if serious mistakes are made in the location decision. In both sectors, "unless the strategic context for why a company [or command] chooses to be there in the first place is incorporated into the site selection process, the final decision cannot effectively satisfy the location attributes that will lead to business [or military] success."[29] This thesis uses the Analytical Hierarchy Process (AHP) business model, as applied to location decisions by Yang and Lee, because it is the most comprehensive, procedural, and detailed model available.[30]

This chapter will begin by describing the model as it is applied to the business sector, and then proceed to reorient it for application to combatant command location decisions. The AHP is designed to simplify highly complex decisions. It has been successfully used to determine choices in a variety of problems such as organizational research planning, marketing, finance, education and a host of others. In the 1990s, it gained prominence as a tool to aid in the determination of facility location and relocation decisions. It is a mathematical model utilizing qualitative and quantitative analysis techniques to break complex variables into basic components for ease of evaluation.[31]

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29 Tresslar, "Putting the Location Decision into a Business Context."

30 Other options considered the general, phased approach cited by Tresslar and Feemster in the website Area Development Online.

31 Yang and Lee, "AHP Decision Model," 242, 245.

Yang and Lee make four initial assumptions that significantly affect planning efforts: a new facility location is justified and adequate resources are available for the complex decision process; decision makers (DM) understand the issues surrounding the geographical options; DMs understand the operational characteristics and location variables required to align the final location with the company's objectives; and the DMs will make inputs into the solution process.[32]   The process to determine the relevant operational characteristics and location variables is an iterative one.   Typically, the analysts provide their assessments to the DM for concurrence and/or further guidance before finalizing the parameters of the model that will identify the optimal location. Miscalculations can occur when DMs pre-determine the location prior to thorough consideration of all the appropriate variables or when making subjective assumptions. Utilizing AHP makes the process objective by ensuring all factors are included in the process.

Yang and Lee identify several categories of factors to be considered in the decision making process (Table 1).[33] These are not entirely fixed, because each business will have slightly different location criteria, but rather serve as a starting point from which to define more specific criteria for a specific location decision.[34] Bolded items indicate a factor that has applicability in the military model. These factors may not transfer exactly, such as *access to markets/distribution centers* will be addressed as *strategic access*.

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32 Yang and Lee, "AHP Decision Model," 248.

33 Yang and Lee, "AHP Decision Model," 244.

34 For example, if a business is primarily a manufacturer it will likely require a location close to raw materials and inexpensive labor. If it is a service oriented industry such as tourism, it may consider the esthetics, remoteness, and/or activities of the surrounding area and community as a priority based on the need to attract tourists. If the business is a high-tech development business, it may choose to be close to leading universities and areas of highly-skilled workers.

Factor Category	Specific Factor
Access to markets/ distribution centers	**- Cost of serving markets** - Trends in sales by area **- Ability to penetrate local markets by plant presences**
Access to supplies/ resources	- Transportation costs - Trends to supplier in area
Community/ government access	**- Ambience/ Cost of living** **- Cooperation with established local industry** - Community Pride **- Housing/churches** **- Schools and colleges**
Competitive considerations	**- Location of competitors** **- Likely reaction to new site**
Environmental factors	**- Community Attitude** **- State/local Government regulations**
Labor	- Prevailing wage rates - Extent and militancy of unions in the area - Productivity - Availability - Skill levels Available
Taxes and Financing	- State income tax /local priority and income taxes - Unemployment an compensation premiums - Tax incentive concessions - Industrial pollution control revenue board
Transportation	**- Trucking Svc** **- Rail Service** **- Air Service**
Utilities Service	**- Quality and prices of water and sewage** **- Availability and price of electric and natural gas** **- Quality of police, fire, and medical services**

Table 1.　　AHP Criteria[35]

There are three major steps in the AHP solution process.

Problem decomposition involves identifying pertinent factors to the specific relocation decision and organizing these into a hierarchy.

Comparative analysis involves the relative importance of each element at a particular level by a procedure of pairwise comparison after the decision makers have provided a general prioritization of elements.

Synthesis of priorities involves establishing priority weights of elements at each level using eigenvector or least square analysis methods to produce overall composite weights.[36]

These three major steps are further broken down as indicated in Figure 1.
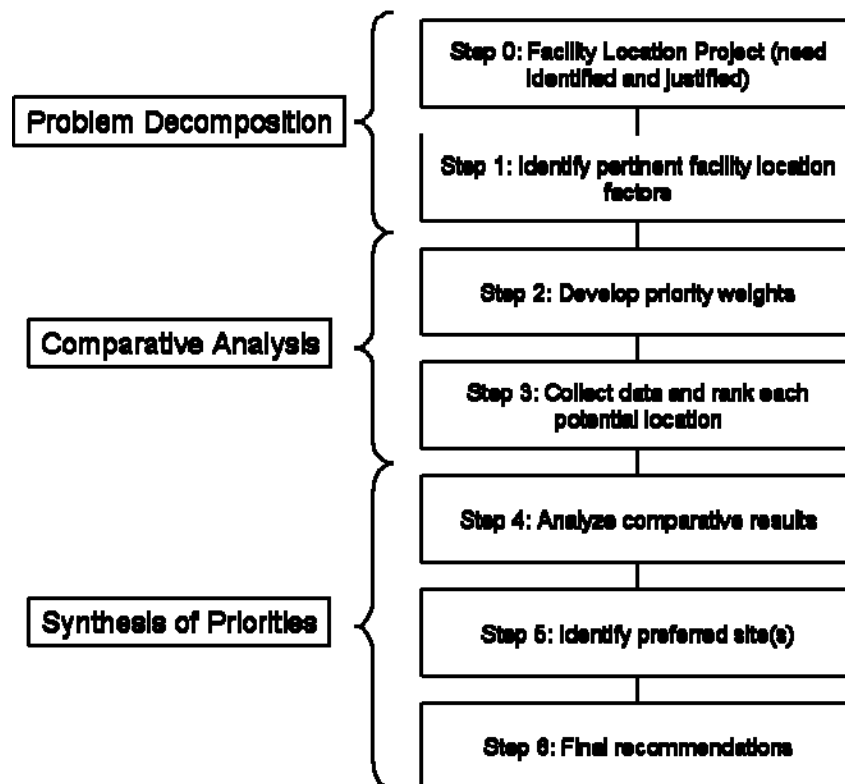
Figure 1.   Combined solution process of the AHP Location Model[37]

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36 Yang and Lee, "AHP Decision Model," 246. Eigenvector analysis utilizes matrix algebra to mathematically compare relationships between a series of values. It consists of a vector (eigenvector) and an eigenvalue or weight for the purposes of this paper.

37 Yang and Lee, "AHP Decision Model," 246-247.

Problem decomposition begins with a company's decision to establish or relocate its headquarters (step 0). An initial review of the company's objectives leads to the development of a list of pertinent factors. Yang and Lee's AHP location example imagines that a company has chosen to establish a location to increase its access to a new market. The leadership and analysis team have identified four factors and sub-factors they determine as the most important to achieving this goal: access to the market, transportation, availability of labor, and local community concerns such as housing and infrastructure support (Step 1). Figure 2 shows the hierarchy of the factors developed in the example, and indicates whether the site-specific data is quantifiable (Yes [Y] or No [N]). For convenience, A will represent Market in the coming tables and its sub-factors will be represented by A1, A2, and A3 in order in Figure 2, followed by B, C, and D.
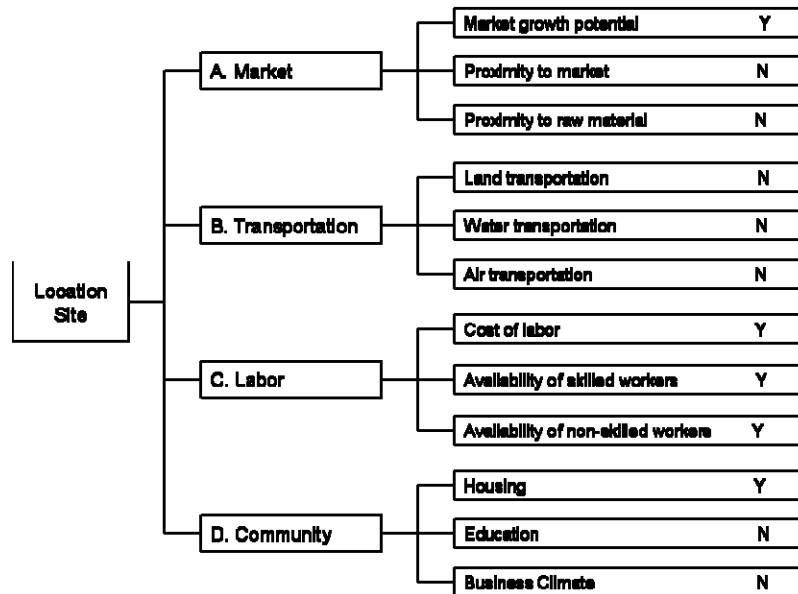
Figure 2.   Hierarchical Representation of Location Factors[38]

Determining the weight of each factor and sub-factor has two elements (Step 2, Figure 1). First, the factors are rated through a *pairwise comparison* at each level (i.e., market, transportation, labor, and community will be compared against each other while sub-factors such as housing, education, and business climate will be compared against each other within their parent factor). Table 2 provides rating definitions used during

38 Yang and Lee, "AHP Decision Model," 249.

pairwise comparisons in the AHP to identify relative intensities between two items. It identifies the importance of factors and sub-factors by comparing one against the other using the explanations below. It is important to start with the definition first because the process does not indicate that assigning factor X a value of 5 over factor Y means that it is 5 times as important, but that X is of *strong importance* over Y. Even values provide for greater precision and stand for intermediate levels of importance between the bounded intensities. The table utilizes the values as determined in original AHP analyses. [39] Second, the associated *intensity of importance* will then be input into an N by N matrix (Table 6), where it is used to determine the relative weight after all pairwise comparisons have been made. [40] This process, a qualitative analysis leading to a quantitative value, is also used for all qualitative comparisons that occur at the site data level.

Intensity of Importance	Definition	Explanation
1	**Equal Importance**	**Two activities contribute equally to the objective**
2	Weak	
3	**Moderate Importance**	**Experience and judgment slightly favor one activity over another**
4	Moderate Plus	
5	**Strong Importance**	**Experience and judgment strongly favor one activity over another**
6	Strong Plus	
7	**Very Strong Importance**	**An activity is favored very strongly over another; its dominance demonstrated in practice**
8	Very, very strong	
9	**Extreme Importance**	**The evidence favoring one activity over another is of the highest order of affirmation**

Table 2.   Rating Scale[41]

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39 Angelis Tsagdis, "The Use of Analytical Hierarchy Process as a Source Selection Methodology and Its Potential Application within the Hellenic Air Force," (M.B.A. Thesis, Naval Postgraduate School, Monterey, CA, June 2008), 18.

40 Pairwise comparison is a head to head comparison of all qualitative elements (in this case factors and sub-factors) in a given problem. The weights will be calculated using a matrix that shows all head to head comparisons. Calculations used the AHP Calculation Software by CGI at http://www.isc.senshu-u.ac.jp/~thc0456/EAHP/AHPweb.html.

41 Tsagdis, "The Use of Analytical Hierarchy Process," 18.

Table 3 below shows a hypothetical weighting of factors A, B, C and D. Factors will be compared along the horizontal; an integer value indicates the row heading is of greater importance than the column whereas a fraction value indicates the column is more important. (Note: the reciprocal value will be automatically filled in the reciprocal cell.) By definition, A vs. A is equal to itself. A vs. B shows an integer value that indicates A is weakly more important than B. Yet A vs. D shows a value of 1/8 of D indicating D is very, very strongly more important than A. The final column indicates the *Factor Weight* for a given element (A, B, C, or D) across its hierarchical level. This factor weighted value will be carried forward for use in determining the composite weights. The same process applies to the sub-factors in order to determine their weights. Table 6 shows a similar comparison and evaluates the *Community* sub-factors. Both factor (Table 3) and sub-factor weights (Table 4) have been carried forward to Table 5 and combined to determine the overall weightings for use with specific site data values. Finally, composite weights are calculated by multiplying the weighted value of each factor by its specific sub-factor weights. Note that specific examples for sub-factors in A, B, and C have been calculated in similar fashion to those for D1 to D3 and are presented to show the final composite weight table in its entirety. Once the composite weights are calculated, specific site evaluations may commence (Step 3, Figure 1). Table 5 displays the composite weights in the example under discussion.

	A	B	C	D	Factor Weight
A	1	2	1/3	1/8	0.0639
B	1/2	1	1/2	5	0.3817
C	3	2	1	1/4	0.1427
D	8	1/5	4	1	0.4115

Table 3.   Location Factor Weights[42]

42 Yang and Lee, "AHP Decision Model," 253. In all tables, an item evaluated against itself always has a value of 1. The process compares factors horizontally across the matrix. Category B is seen as weakly more important than A, C is moderately less important than A (indicated by the 1/3) and D is very, very strongly less important than A.   In other words, B is the most important rated criteria on this line. One can also see that the reciprocal is also true and must be utilized to fill out column A.

	D1	D2	D3	Priority Weight: Community
D1	1	5	8	0.9502
D2	1/5	1	1/2	0.0175
D3	1/8	2	1	0.0322

Table 4.   Priority Weights of Factor D: Community[43]

Factor	A 0.0639	B 0.3817	C 0.1427	D 0.4115	Composite Priority
A	0.0639				
A1	0.1842				**0.0117**
A2	0.4826				**0.0308**
A3	0.3331				**0.0213**
B		0.3817			
B1		0.3748			**0.1430**
B2		0.4493			**0.1715**
B3		0.1758			**0.0671**
C			0.1427		
C1			0.1566		**0.0223**
C2			0.4783		**0.0682**
C3			0.3650		**0.0521**
D				0.4115	
D1				0.9502	**0.3910**
D2				0.0175	**0.0072**
D3				0.0322	**0.0133**

Table 5.   Composite Weighted Scores[44]

In Step 3, Figure 1, the focus shifts to site data collection and analysis.   There will be a specific site value for each sub-factor weight above. Site data will generally be a mix of qualitative and quantitative indicators, which requires two distinct analyses.

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43 Yang and Lee, "AHP Decision Model," 253. Table 5 shows the weighting of sub-factors within a priority factor.

44 Yang and Lee, "AHP Decision Model," 249. Bolded values transfer to final calculations.

Quantitative site information (normalized when necessary[45]) is compared directly while qualitative factors for the site under consideration are ranked by pairwise comparison and valued as described above. The sub-factor composite weight from Table 5 will be combined with the sub-factor site-specific rating in order to provide the sub-factor final score. Table 7 provides an example of a quantitative site comparison.

	Site 1	Site 2	Site 3	A2 Site Value
A2				
Site 1	1	1/4	5	**0.4783**
Site 2	4	1	6	**0.3650**
Site 3	1/5	1/6	1	**0.1566**

Table 6.   Qualitative Site Calculations[46]

Table 7 provides an illustrative example where the values in raw form show a lower value when that specific actually has a higher indication in much the same as a golf score (low value wins). The values of 15, 3, and 7 show that site two is the preferred site because it has the lowest score. However, these values must be normalized to align with the mathematical convention where a higher priority is indicated by a higher value and keep with the convention of the model. Essentially, the inverse must be calculated for comparison in this case. Yang and Lee utilize a value of 100 divided by the raw score to determine specific ratings values and the subsequent percentage value of the three sites.[47]

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45 In order to compare quantitative data, values will require normalization when the basis for comparison is not identical. This will occur in cases where different sources categorize raw scores in different manners (e.g., total crimes in a metropolitan area vs crime per capita) or when data indicates the inverse to numerical conventions (e.g., like a golf game where low score wins). In either case, this will require normalization to convert raw data values into like characteristics for use in subsequent calculations. The exact normalization procedure will depend on the specific parameters of the data sets and be described where applicable.

46 Yang and Lee, "AHP Decision Model," 254. Bolded values transfer to final calculations.

47 Using a value of 1 instead of 100 would have yielded the same results. The author estimates that Yang and Lee utilize 100 in order to minimize the number of places behind the decimal for presentation clarity.

Of note, the data used in the AHP example by Yang and Lee provide a theoretical representation of business data for arguments sake.

Factor	A1	$T_i = 100/A1$	Ratings value $= T_i/\Sigma T_i$
Site 1	15	6.66	**0.123**
Site 2	3	33.33	**0.614**
Site 3	7	14.28	**0.263**

Table 7.   Quantitative Site Calculations[48]

Step 4 of Figure 1, *Analyze Comparative Results* simply involves calculating total scores for each site, leading to Step 5, *Identify Preferred Site(s)*. Table 8 indicates the final results for our site selection illustrative example. In this hypothetical case, Site 2 receives the highest score, indicating that it is the best choice based on the priority factors specified by the DM, which for this example were market (A), transportation (B), labor (C), and community (D).   Step 6, Final Recommendations, involves making a recommendation to the DM based on the model's analysis.

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48 Yang and Lee, "AHP Decision Model," 254. Bolded values transfer to final calculations.

Factor (j)	Priority (w_j)	Site 1 (r_{ij1})	Site 2 (r_{ij2})	Site 3 (r_{ij3})
A				
A1	0.0117	0.1230	0.6140	0.2630
A2	0.0308	0.4783	0.3650	0.1566
A3	0.0213	0.6707	0.2855	0.0437
B				
B1	0.1430	0.1210	0.8681	0.0108
B2	0.1715	0.8147	0.0175	0.1676
B3	0.0671	0.0171	0.0628	0.9199
C				
C1	0.0223	0.0423	0.3320	0.2460
C2	0.0682	0.6060	0.1510	0.2420
C3	0.0521	0.3150	0.2090	0.4750
D				
D1	0.9029	0.2300	0.6150	0.1540
D2	0.0166	0.1563	0.6338	0.2098
D3	0.0305	0.5691	0.1864	0.2443
Score = $\Sigma w_{ix} r_{ijSiteY}$		0.4834	0.7559	0.2975

Table 8.   Overall Site Selection Rating[49]

B.   FROM BUSINESS TO DEFENSE

What elements should leadership assess when considering different sites for a combatant command's permanent location?   The following analysis is based on a combination of the above model, where business and military decision calculi overlap, and the author's personal experience while assigned to two combatant commands, where they do not. DM input is inferred from statements in primary and secondary sources and published DoD doctrine.   Because the purpose of this thesis is to test the model on SOUTHCOM then use it to recommend a location for AFRICOM's headquarters, the

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49 Yang and Lee, "AHP Decision Model," 249.

model is specified with the particular missions of these two commands in mind. If it were applied to other subordinate commands, it would need to be adapted to the overall mission of the relevant command.

1.   Combatant Command Problem Decomposition

Joint Publication 0-2, *Unified Action Armed Forces*, defines overall mission guidance and lays the groundwork for addressing the strategic and operational levels of the military.[50] It states that a combatant command has "a broad continuing mission …necessitating a single strategic direction."[51] It must to be able to plan, integrate, and execute several large-scale operations over a "large geographic area requiring single responsibility for effective coordination."[52] In other words, it performs the task of coordinating and integrating strategic policy, guidance, and objectives with the operational forces to achieve the country's strategic ends.

The current state of SOUTHCOM and AFRICOM AORs require mission orientation primarily focused on Theater Security Cooperation than the kinetic missions more commonly associated with the military, however, as with any combatant command they must remain prepared to undertake kinetic missions when directed to do so. All commands need to function with negligible disruptions in planning and operations to ensure continuity of effort, which implies a stable and secure host city or region. Continual disruptions undermine the long-range focus required for attaining strategic

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50 Per DoD Joint Publication 1-02, page 523 the strategic level of warfare is that "level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, and develops and uses national resources to achieve these objectives. Activities at this level establish national and multinational military objectives; sequence initiatives; define limits and assess risks for the use of military and other instruments of national power; develop global plans or theater war plans to achieve those objectives; and provide military forces and other capabilities in accordance with strategic plans." Per page 399, the operational level of war is that "level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas. Activities at this level link tactics and strategy by establishing operational objectives needed to achieve the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events."

51 United States Department of Defense, 2007, Doctrine for the Armed Forces of the United States (Washington, DC, 2007), V-5-V-6. Joint publications are commonly referred to as JP's; i.e., Joint Publication 1 is JP-1.

52 Department of Defense, JP-1, V-6.

goals. In concert with the need for stability and security is the requirement for local physical infrastructure to support the thousands of personnel assigned.[53] Local communities must be able to absorb the influx of personnel and provide sufficient level of support for them to operate effectively and live comfortably. In addition, the local community must be willing to support a headquarters. If significant dissent makes it unsafe or untenable for the headquarters to operate, it will have great difficulty in achieving its objectives. Finally, daily operating costs should be commensurate with anticipated objectives. These are the most important broad requirements for the command. Thus, the first hierarchical level factors are *strategic access*, *local infrastructure*, and *local environment.*

a. Strategic Access

Recent government emphases promote greater integration amongst departments, particularly when responsibility for overseas missions becomes more intertwined and interdependent. Following this trend, recent military leaders have indicated the importance and need to increase cross discipline understanding and coordination in order to promote U.S. government objectives.[54]

Strategic Access provides the engagement opportunities that synchronize activities within the AOR and amongst strategic actors, including planning, coordination, and execution of operations (e.g., joint and combined exercises, security cooperation, humanitarian assistance/disaster relief, operations, etc.). It includes a broad group of partner organizations that have similar objectives in and around the combatant command's AOR, such as businesses, extra-regional countries, non-governmental organizations, host nations[55] and U.S. government agencies. No single location will maximize access to all of these potential partners. For example, a forward location will maximize access to regional states, while reducing access to partners in the U.S.

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53 This figure includes the combatant commander's staff, base support personnel (medical, security, administrative, etc.), and locals (foreign nationals, U.S. citizens, or both dependent on location).

54 Ward, "Charlie Rose Show," Stavridis, "Posture Statement 2008."

55 Note: this thesis uses host nation and partner nation. Host nation is the nation where the combatant command will reside, while partner nation is any nation with which the U.S. will engage.

government, mostly located in Washington, DC, and/or strategic partners, located across the globe. Strategic access is thus a very broad category that must be broken into more manageable sub-factors. The first is access to other U.S. government agencies that develop coordinated, coherent strategies and policies with DoD and combatant commands to align U.S. government objectives and maximize efficiency and effectiveness. The second is access to strategic partners and the third access to regional nations and their militaries and security forces.

DoD Joint Publications state unity of effort between DoD and other U.S. government agencies can only be accomplished through "close, continuous interagency and interdepartmental coordination, which are necessary to overcome "departmental differences and bureaucratic hurdles.[56] Essentially, the ability to synchronize and operate with other U.S. government agencies is paramount in executing a united U.S. strategy. Significant concerns occur when military commands are posted forward and disconnects occur as these commands move to engage with local governments. These concerns generally center on the development of policy from the front without coordination, consideration, or input from centers of government. This concern reaches back to the early to mid-1900s when the United States expanded its influence as a result of world conflicts.[57]

The second sub-factor, *strategic partners*, has become more important as relationships between government, business, and social organizations have become more complex and combatant commands have been called upon to expand beyond traditional relationships to advance security. These entities are grouped under the moniker 'strategic partners' because they are entities with which the USG does not have formally established relationships and therefore must use diplomacy to establish and coordinate strategic goals and objectives.

Finally, the ability to engage regional nations within a combatant commands' AOR may mean increasing the ability of a regional state to defend itself

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56 United States Department of Defense, JP-1, VII-1 - VII-2.

57 Zink, "American Military Government Organization," 330-332.

against aggressive neighbors or aiding a state with internal security, through training of gendarmerie, police, or military. These activities usually include security cooperation assistance[58] and combined exercises (two or more country participants). Important to the success of these missions is the command's understanding of the recipient country's culture, including how to interpret and communicate desired needs and outcomes. Recent studies highlight the impact that diasporas have on home country politics and economic factors.[59] Significant benefit can be gained when a city has a significant local diaspora as it lends unique insight into cultural understanding and will likely hold direct links through family ties back to the host country. Therefore, regional access is supported by formal (e.g., embassy) and informal (e.g., diaspora) segments.

b. Site Infrastructure

Site infrastructure evaluates the city's capabilities to support command function and operations. The city must provide reliable electricity, water, and sanitation. The command also needs close access to transportation networks that allow equipment and personnel to travel freely. Finally, the location cost of living needs to be considered. Therefore, local infrastructures three sub-factors utilities, transportation, and the cost of living.

Transportation requirements extend beyond the boundaries of *within and around* the host city to include the ability to support various means of international travel that support movements of operational elements that will execute theater security cooperation activities as indicated in current mission statements. The command's recommended location should be in close proximity to transport hubs that can handle its operational forces and therefore the local transportation infrastructure must have a demonstrated capability to handle modest levels of heavy equipment such as wide body aircraft and transport ships.

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58 Security assistance includes a vast array of programs such as foreign military sales, foreign military financing, education exchanges, and senior leader visits both in the United States and abroad.

59 Yossi Shain, "Ethnic Diasporas and U.S. Foreign Policy," *Political Science Quarterly* 109, No 5, Winter 1994-1995, 811-813; Yossi Shain and Aharon Barth, "Diasporas and International Relations Theory," *International Organization* 57, No 3, Summer 2003, 449-452; William J. Lahneman, "Impact of Diaspora Communities on National and Global Politics," CIA Strategic Assessment Group, 5 July 2005, i.

The host infrastructure factor should also have a low cost of living, while still providing adequate support. In some cases, a higher cost of living will be offset by strategic advantages.

c.   Local Environment

Local environment indicates whether a city/region provides a safe environment for command function and a safe living environment for accompanying support staff and families

The ability to plan and coordinate requires a fairly benign and secure environment and one in which the threat of attack or violence is low. Even the threat of an attack results in increased force protection, which has an impact on the ability of planners to coordinate with other entities and develop complete plans.
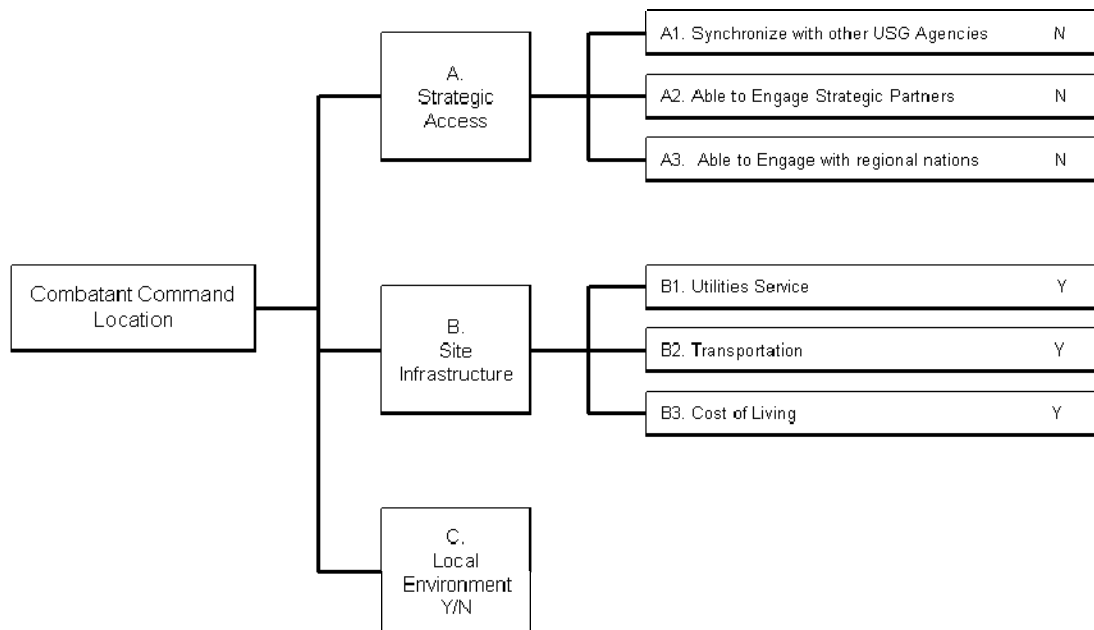
Figure 3.   Combatant Command Factor Decomposition

2. Determining Weighted Values

This section determines factor weights based on the need for a combatant command to perform common functions at the strategic level in support of DoD doctrine and focused mission areas that SOUTHCOM and AFRICOM share (e.g., TSC).

a. Level One Hierarchy Factor Weighted Values

Strategic access has already been established as the priority factor in determining the location of a command. Nevertheless, the three level one factors must still be compared against one another to determine specific factor weights. Strategic access is more important than local infrastructure because it is the key component and mission of a command. Local infrastructure and environment support the headquarters' mission and thus affect its efficiency. Thus, *strategic access* is assigned a value of 3 in comparison to *site infrastructure* (moderately more important) and a value of 2 in comparison to site infrastructure (weakly more important).

A country that has less developed infrastructure, but is significantly more stable presents a better option than one that has more developed infrastructure, but experiences significant violence or instability. As a result, local environment is more important than site infrastructure and given a value of 2 (weakly more important) (Table 9).

	A	B	C	Factor Weights
A. Strategic Access	1	3	2	0.5396
B. Site Infrastructure	1/3	1	1/2	0.1634
C. Local Environment	1/2	2	1	0.2970

Table 9.   Hierarchy Level 1 Factor Weights

b. Sub-factor Weighted Values

The U.S. government is committed to developing a collective, holistic government policy to focus efforts, increase efficiencies, and ideally increase policy effectiveness.[60] In *U.S. government access*, DoD plays a supporting role to other government agencies in USG operations, except when directly engaged in combat while it has significant relations with other nations' military and security forces. Therefore, *U.S. government access* and *partner nation engagement* are mutually supporting efforts and therefore are weighted equal to each other in a pairwise comparison, with a value of 1 (equal importance). In a pairwise comparison vis-à-vis *strategic partner engagement* both are assigned a value of 3 (moderately more important). The unique tools that strategic partners bring are additive when combined in common efforts (Table 10).

	A1	A2	A3	Sub-factor Weight
A1 U.S. Government Access	1	3	1	0.4286
A2 Strategic Partner Engagement	1/3	1	1/3	0.1429
A3 Partner Nations Engagement	1	3	1	0.4286

Table 10.   Strategic Access Sub-factor Weights

The relative importance of *site infrastructure* sub-factors is less obvious. The rank ordering was determined to be utilities, transportation, and cost of living because *utilities* (water and sewage, communications and technology, and energy) are necessary for the day-to-day functioning of the command. Compared to both *transportation* and *cost of living*, *utilities* is ranked a 2 (weakly more important). *Transportation* is ranked a 3 (moderately more important) vis-à-vis *cost of living* because it plays a larger role in operational requirements (Table 11).   Final combatant command results are provided in Table 12.

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60 Ward, "Charlie Rose Show"; Stavridis, "Posture Statement 2008," 11-14.

	B1	B2	B3	Sub-Factor Weights
B1 Utilities Service	1	2	3	0.5278
B2 Transportation	1/2	1	3	0.3325
B3 Cost of Living	1/2	1/3	1	0.1397

Table 11.   Site Infrastructure Sub-factor Weights

Factor	A 0.5396	B 0.1634	C 0.2970	Composite Priority
A	0.5396			
A1	0.4286			**0.2313**
A2	0.1429			**0.0771**
A3	0.4286			**0.2313**
B		0.1634		
B1		0.5278		**0.0862**
B2		0.3325		**0.0543**
B3		0.1397		**0.0228**
C			0.2970	**0.2970**

Table 12.   Combatant Command Composite Weights

3.   Indicators and Measurements

a.   *Strategic Access Indicators*

Measuring access depends on the ability of two entities to engage in order to achieve common ground. Engagement at this level requires close, frequent, and near immediate coordination across agencies in order to achieve unity of effort and policy. Policy development at this level cannot be achieved without this level of coordination. With the advent of communication networks and technologies it becomes much easier for these entities to reach across the miles to develop and integrate plans and operations, but these methods have limitations which are affected by a variety of factors such as weather,

utility failures, public disturbances, bandwidth shortages, and a host of other interruptions that cause significant delays in policy development. And, the ability to engage directly across a table with partners remains a very important aspect of coordination, particularly with complex issues involving multiple parties. These considerations led to the identification of the following measures for strategic access factors.

(1) USG Agency Strategic Access Indicator. The indicator is the ease of travel (i.e., direct flights) between Washington, D.C. and potential headquarters locations. Washington, D.C. is served by three airports within reasonable distance, therefore all three airports will figure into the indicator. Similarly, if a potential site is served by greater than one airport; those airports will be considered in the final calculation. Frequency of direct flights is the measure of access. Site scores are the percentage of direct flights to DC from all sites under consideration accounted for by a specific site.

$$\frac{\text{DC Flights/day site X}}{\sum \text{DC flights/day all sites}} = \text{A1 site X value}$$

Flight and distance information are obtained from the U.S. Department of Transportation. Domestic information is obtained from the Research and Innovative Technology Administration, Bureau of Travel Statistics (BTS) database (available at www.bts.gov). International statistics are obtained from the Office of Aviation and International Affairs (available at http://ostpxweb.dot.gov/aviation/usstatreport.htm#Report). These databases only go back to 1995 and 1996 respectively. Data for the SOUTHCOM decision in 1947 will be compiled from other sources (see chapter three for specifics).

(2) Strategic Partner Engagement Indicators. Therefore, three measures are used create an indicator of strategic partner engagement: trade volume is used as an indication of the volume of business moving through the host city, an indirect indicator of business access (in dollar equivalents between through the host city), NGO/IGO headquarters measures the daily access, and strategic level international

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meetings measure the importance of the host city in the international spectrum. Trade data comes from U.S. Census Bureau *Statistical Abstract of the United States* publications. International organization and non-governmental organization data comes from the Yearbook of International Organizations published by the Union of International Associations. In similar fashion to USG Access, site values are a percentage value of the host city in comparison to the other competing sites. The three site measures (trade, NGO/IGO HQs, and international meetings) will be averaged to determine the site value.

     (3) Regional Nation Engagement Indicators. This indicator measures the capacity of two representatives (e.g., defense attaché of state in AOR and combatant command planner) to engage one another in analyzing and solving common problems cooperatively. Recent emphases within DoD focus on the ability to understand cultural traits and differences to minimize barriers to progress and maximize channels to progress.[61] Regional nation engagement can occur in one of two ways: directly when a nation hosts a combatant command, or indirectly, through a combination of embassies, consulates, and diaspora from the AOR in question. Formal (consulates and embassies) and informal (diaspora) elements are combined in the measure of access: formal because of its policy making implications, and informal because of its affect on understanding regional nation cultures. By definition, a regional location provides greater opportunity for access. However, engagement beyond the host country to others in the region may be significantly limited by the host's access to and relations with the remainder of the AOR. The formal aspect of embassies and/or consulates is a simple count of the number present in each potential site and then using the comparable percentage value of all sites. In and of itself, a diaspora cannot be the single point of access into a country, but can instead augment an existing formal channel such as a consulate. The total numbers of AOR diasporas and population of these diaspora will indicate their prominence and therefore potential for access. The final site values will be calculated according to the following formula - Formal channels are weighted three times more important than the combination

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61 White House, The National Security Strategy of the United States of America (Washington, DC, March 2006), 45; Department of Defense, Quadrennial Defense Review Report (Washington, DC, 6 February 2006), 78-79, 89.

of population percentage of AOR ethnic groups (e.g., Hispanic) and the number of distinct AOR diaspora (e.g., Cuban, Dominican, etc).

0.75(Formal norm) + 0.125(Informal % + Distinct Diaspora)   = A3 Site value

Embassy data comes from Department of State *Websites of U.S. Embassies , Consulates, and Diplomatic Missions* (available at www.usembassy.gov) and GoAbroad.com (available at www.embassiesabroad.com) sources for embassies and consulates. For SOUTHCOM 1947, Embassy data comes from the *Yearbook of International Organizations,* 1950. Diaspora information will be a composite of the following - CIA World Factbook, Nationmaster.com, host government websites, internet diaspora sources, and chambers of commerce. Specific sources will be cited where required.

b.   Site Infrastructure Indicators

The utilities indicator is a composite of three measures water, energy, and communications provisions as a percentage of availability or reliability.   Data comes predominately from The World Bank *World Development Indicators* yearly publications. The measures values are a percentage comparison of the sites. These values are then averaged to determine the utilities sub-factor site value.

Transportation focuses on air and sea ports because overland transport does not provide logistical support at the strategic level between the United States and AOR countries. Transportation data comes from the U.S. Department of Transportation (available at http://ostpxweb.dot.gov/aviation/usstatreport.htm#Report), *Statistical Abstract of the United States* publications, and the World Development Indicators publications. Specific measures are the passengers enplaned per year, freight cargo between either the U.S. and host nation country or the host nation country and the specific U.S. city under consideration. Site-specific measurement values are percent values of the total. The final score is the sum of the site measures weighted equally.

$$\frac{\sum \text{site measures}}{\sum \text{Measures for all sites}} = \text{Transport Cumulative Site Value}$$

Cost of living data is measured by the Consumer Prince Index (CPI). Domestic data comes from the *Statistical Abstract of the United States* publications and international data comes from the United States Department of State *Indexes of Living Costs Abroad, Quarters Allowances, and Cost Differentials*. Both sources are from the same time period and provide a common denominator to Washington, D.C. Specific site values are divided to Washington, D.C. and then compared on a normative basis.

c.   *Local Environment Indicator*

Local environment is measured by Freedom House political rights (PR) and civil liberties (CL) scores. Trends in political and civil rights, in combination with a thorough analysis of the Freedom House written summary provide the basis for a qualitative assessment of each location. The scores indicate the trend in PR and CL progress over the 15 years preceding the location decision. A graph that shows frequent changes indicates that the location is in political flux and potentially unstable. A review of the report is used to determine the volatility of a country and its support for the rule of law. A country rated Not Free does not necessarily have a propensity for violence. Changes in PR and CL in combination with large-scale violence indicate instability and thus an inhospitable environment for a command headquarters. Final site values are compared through qualitative analysis, rated in pairwise comparison using the definitions in Table 2. The intensities of ratings are then input into the matrix to determine the site values.

The process described above is necessary to determine the final scores in order to compare the site locations objectively. This process is next applied to SOUTHCOM to review the relocation decision and evaluate the final decision. Finally, the It is applied to AFRICOM's location discussion to recommend a final site best suited for the command to achieve its mission.

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III. UNITED STATES SOUTHERN COMMAND: WAS MIAMI THE RIGHT CHOICE?

A. A BRIEF HISTORY

SOUTHCOM has gone through many changes during its long history as it faced different strategic challenges and was modified and adapted in response to these changes in focus and mission. It was positioned in Panama City, Panama from 1948 to 1997, when it was relocated to Miami, Florida. This presents two opportunities in which to test the model developed in the previous chapter: the initial decision to locate in Panama and the subsequent decision to relocate in Miami.

The United States first positioned forces in the current SOUTHCOM AOR in 1903 when U.S. Marines deployed to Panama to protect the Panama Railroad. These forces maintained a permanent presence in varying forms from then until 1997, when the entire command relocated to Miami. The initial deployment was single service oriented and positioned as an operational level of command designed first to protect the Panama Railroad, then the construction of the Panama Canal, and finally, to defend the canal and ensure uninterrupted operation of a strategic choke point. During World War I, the U.S. Army designated the command as the Caribbean Defense Command (CDC), a geographic command. As threats grew during World War II, the command came to include Air and Navy units making it a *de facto* combatant command. In 1947, President Harry Truman signed the National Security Act, establishing the Unified Command Plan (UCP), which initiated the combatant command structure currently in place. CDC changed its name to United States Caribbean Command and became fully operational on 10 March 1948. It was designated United States Southern Command in 1967 when the UCP was modified.

President Jimmy Carter signed the Panama Canal Treaties in 1977, transferring responsibility for security of the canal to Panama on 1 January 2000. As part of this transition, SOUTHCOM was directed to find another location from which to execute its mission. The initial list of more than 100 potential locations was reduced to a short list of

5: New Orleans, Louisiana; Tampa and Miami, Florida, San Juan, Puerto Rico; and Atlanta, Georgia.[62]   This review will include SOUTHCOM's first location, Quarry Heights, Panama.

B.   SOUTHERN COMMAND TRANSITIONS TO A COMBATANT COMMAND

1.   SOUTHCOM 1947

Until implementation of the Panama Canal Treaty, SOUTHCOM's location was determined solely by tactical and operational need to provide security for the Panama Canal.   Although the region grew in importance over its first five decades, and the command grew as well, its core mission and its established location remained the same. Was Panama the right location for SOUTHCOM?

This section analyzes whether any of the five cities on the short list for the relocation decision in 1997 would have been a better overall location for SOUTHCOM in the late 1940s. Data for the 1947 time period is less available then for the 1997 model so alternate measures are required in some places.

2.   Evaluating SOUTHCOM's Initial Location Using the AHP Model

a.   A1 - United States Government Access

Access to the U.S. seat of government in Washington D.C. was extremely limited in the immediate post World War Two time period.   Air travel within the United States was in its fledgling stage and offered little in the way of mass transit, although, travel within the contiguous states was growing quickly.   Of the six locations under consideration, Atlanta and Miami were the first to support major airlines offering significant numbers of flights within the United States and between the U.S. and the SOUTHCOM AOR.   Because of the significantly different travel situation, the alternate measure of distance between potential location and Washington, D.C. will be used

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62 At least 96 total locations were considered in the course of this location decision.   "Military Center Favors Move to Puerto Rico," Charleston Gazette (West Virginia, December 18 1994).

City, State(Country)	Distance (miles)	Site Value
Panama	2065	**0.0774**
New Orleans	974	**0.1642**
Tampa	822	**0.1945**
Miami	929	**0.1721**
San Juan	1563	**0.1023**
Atlanta	552	**0.2896**

Table 13.   A1 - SOUTHCOM 1947-50 USG Access

b.   *A2 - Strategic Partner Engagement*

Trade data comes from the Statistical Abstract of the United States 1951, only year 1947 is used in this calculation because this is the only year for which data is listed for all potential locations. The Yearbook of International Organizations, 1948 shows no headquarters or high-level meetings for the potential locations. Therefore, engagement site values with strategic partners will be limited to trade data for the year 1947 because this provides the most complete analysis point to determine strategic partner integration as defined in the model. U.S. totals for IGO/NGO data are provided merely to show the level of activity within the country in comparison with Panama.

City, State (Country)	AOR Trade Throughput[63] (Export + Import) (in million $)	Hosted IGO's/NGO's Total IGO/NGO (Total Secretariat IGO/NGO)	NGO/IGO Activity - International Level Meetings	A2 Rank
Panama	220,789	0	0	**0.0823**
New Orleans, LA	1,275,775	0	0	**0.4755**
Tampa, FL	282,493	0	0	**0.1053**
Miami, FL	282,493	0	0	**0.1053**
Puerto Rico	511,255	0	0	**0.1906**
Atlanta, GA	110,161	0	0	**0.0411**
US	NA	77	10	

Table 14.   A2 - SOUTHCOM 1947-50 Strategic Partner Engagement

c.   A3 - Partner Nation Engagement

Embassy data comes from the Yearbook of International Organizations, 1950. U.S. city Latin/Hispanic population percentages come from the earliest available U.S. census data which is 1980. Panama and Puerto Rico percentages are at or near 100 percent. There are no distinct diaspora numbers for this time period.

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63 United States, 1951, Statistical Abstract of the United States 1951, Seventy-second edition, US Department of Commerce, Bureau of Census (Washington, D.C., 1951), 842-860.

City, State (Country)	Embassies or Consulates[64]	S1a. Norm	Latin Population: Total Metro Area (1983)[65]	S1b. Norm	A3 Rank ∑S1a-b/ (∑S1a-b - S6a-b)
Panama	15	0.6250	100	0.4307	**0.5278**
New Orleans	3	0.1250	3.78	0.0163	**0.0706**
Tampa	1	0.0417	4.98	0.0214	**0.0316**
Miami	3	0.1250	23.46	0.1010	**0.1130**
Puerto Rico	2	0.0833	98.8	0.4255	**0.2544**
Atlanta	0	0	1.17	0.0050	**0.0025**

Table 15.   A3 - SOUTHCOM 1947-50 Partner Nation Engagement

d.   *B1 - Utilities*

Alternate sources were consulted to provide a means of evaluating utilities indicators for this timeframe.[66]   Available Water and Sanitation data from the World Bank World Development Indicators for 1978 was used as this is the earliest available infrastructure data. This does not reflect the situation in 1947, but assumes that levels would have been lower then but the relative differences between the six locations would have remained largely the same. The 1978 data shows a significant gap in utilities provisions between Panama and Puerto Rico on the one hand, and the continental U.S. locations on the other. Panama provided just 77 percent of the urban population with clean water.

64 Union of International Associations, Yearbook of International Organizatons, 1950 = Editions de l'Annuaire des Organisations Internationales (Geneva, 1950), 803-845.

65 United States, County and City Data Book 1983, 10th edition, US Bureau of the Census, US Government Printing Office (Washington, DC, 1983), 74, 88, 102, 116, 252.

66 United Nations, Economic Survey of Latin America 1953; United Nations Publication (New York, 1954), 408; Mitchell, Brian R., International Historic Statistics: The Americas 1750-1993, Fourth Ed (Macmillan, London, 1998), 232.

Energy data is more readily available, albeit at the national rather than the municipal level. Thus, country values for energy output are for qualitative assessment for utilities overall. Energy demand in Panama surpassed supply. Several power plants were planned in the next five years to address this shortage. Energy production in the United States surpassed the region by a factor of nearly 1,000 and could support the demands of any of the cities under question. Bottom line, all U.S. locations will be rated the same because there is no available data suggesting otherwise.

Finally, utilities assessment included developing communications architecture in all locations with usage in the United States exceeding that in both Panama and Puerto Rico by factors over 100. Puerto Rico's communications architecture provided a range of two to three factors over Panama. Site values are determined using a pairwise comparison. All U.S. locations have equal values in relation to each other. Final evaluations are U.S. at a value of 9 (extreme importance) over Panama and a value of 4 (moderate plus) over Puerto Rico. Puerto Rico is judged at a value of 5 (Strong) over Panama.

	Panama	NO	Tampa	Miami	PR	Atlanta	Site Value
Panama	1	1/9	1/9	1/9	1/5	1/9	**0.0226**
New Orleans	9	1	1	1	4	1	**0.2276**
Tampa	9	1	1	1	4	1	**0.2276**
Miami	9	1	1	1	4	1	**0.2276**
Puerto Rico	5	1/4	1/4	1/4	1	1/4	**0.0671**
Atlanta	9	1	1	1	4	1	**0.2276**

Table 16.   B1 - SOUTHCOM 1947-50 Utilities Site Values

e.   B2 - Transportation

Transportation was undergoing significant development during the post war period as air travel for the masses was in its infancy. U.S. Census bureau sources for Foreign Trade are limited to 1964 data because that is the closest to the decision point

available. Due to several "no data available" comments, a qualitative analysis is performed on this sub-factor. Sea transport has New Orleans with a significant lead in ship sea transport followed by Puerto Rico and Tampa at approximately half and Miami and Atlanta trailing significantly. Panama is rated equal with Puerto Rico based on similar capabilities. Air transport is less clear because the data shows only for the state of Florida and does not break out individual location values. The value of 126,094,000 pounds is almost ten times greater than the second highest total, Puerto Rico. This indicates that Florida airports have greater capacity than the other potential sites. Based on capabilities for this timeframe, Miami was the most capable of Florida's airports. Remaining rankings have Tampa, Puerto Rico, New Orleans, Atlanta, and Panama.

Overall, New Orleans is the number one location, followed by Puerto Rico, Miami, Tampa, Panama, and Atlanta. Specific values are listed below (Table 18).

Factor	B2 Air Enplanement (1,000)	B2 Air Cargo (1,000 lbs.)[67]	B2 Sea Transport (mil lbs) (1000 #)[68]
Panama	nd	nd	nd
New Orleans	nd	8,026	31,719.9
Florida	--	126,094	--
Tampa	nd	nd	14,511.4
Miami	nd	nd	5,591.0
Puerto Rico	nd	13,941	16,930.4
Atlanta	nd	2,123[69]	5,422.6

Table 17.   SOUTHCOM 1947-50 Transportation Raw Data

67 United States, Bureau of Census, U.S. Airborne Foreign Trade Summary Report, FT986 Jan-Dec 1964 (Washington DC, 1965), 3-4.

68 United States, Bureau of Census, U.S. Waterborne Foreign Trade Summary Report, FT985 Jan-Dec 1964 (Washington DC, 1965), 4-9.

69 Data for Georgia is not available. This total is the remaining import/export data for approximately 10 customs zones not listed.

	Panama	NO	Tampa	Miami	PR	Atlanta	Site Value
Panama	1	1/4	1/3	1/4	1/3	1	**0.0567**
New Orleans	4	1	3	3	4	5	**0.3966**
Tampa, FL	3	1/3	1	1/2	2	3	**0.1521**
Miami, FL	4	1/3	2	1	3	4	**0.2302**
Puerto Rico	3	1/4	1/2	1/3	1	3	**0.1108**
Atlanta, GA	1	1/5	1/3	1/4	1/3	1	**0.0535**

Table 18.   B2 - SOUTHCOM 1947-50 Site Values

f.   B3 - Cost of Living

Table 19 indicates the normalized costs of living using the consumer price indexes as provided in the United Nations Statistical Yearbook. Data in this source highlight all items or food ailments. Food ailments will be the source because data for Panama does not exist for all items in this reference. Dates are the average of the years from 1947 to 1949 with a baseline date of 1937 for reference. Specific data was not available for all U.S. cities; therefore, all cities will be assigned equal values.

	B3[70]	$T_i((1/B3)*100))$	Ratings $(T_i/\Sigma T_i)$
Panama	192.7	0.5190	**0.1678**
New Orleans, LA	192.0	0.5208	**0.1684**
Tampa, FL	192.0	0.5208	**0.1684**
Miami, FL	192.0	0.5208	**0.1684**
Puerto Rico	203.7	0.4910	**0.1587**
Atlanta, GA	192.0	0.5208	**0.1684**

Table 19.   B3 - SOUTHCOM 1947-50 Cost of Living

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70 United Nations, Statistical Yearbook 1949-50 New York, 1950), 401.

g. C - Local Environment

Freedom House rankings began in 1972. As a result, an overview of the sites histories must be done fulfill the requirement to assess their stability and security of the locations under consideration for SOUTHCOM from 1947 to 1950. The source chosen to support the assessment on Panama was George Thomas Kurian's *Encyclopedia of the Third World*[71]. Panama achieved independent, most recently from Colombia in 1903. The country experienced violent overthrow of its governments in 1941, 1949, and 1951.

Puerto Rico enjoyed a less violent early 1900s; however, it did so at the expense of political rights. Voting rights were non-existent until 1948 when the first democratically elected governor assumed office. It was during this period that Puerto Rico began drafting its first constitution as it moved toward being a U.S. territory with internal self-determination. Some independence groups turned violent as the referendum drew closer in 1951.

The United States locations were not free from violence. All are located in the U.S. South, and the violence experienced was racially motivated. In addition, political rights were limited *de jure* by voting requirements necessary and *de facto* to the white population. Still, the U.S. locations were determined more stable than Panama on a level of 5 (strongly) and Puerto Rico on a level of 3 (moderate). Puerto Rico is rated as 3 (moderate) over Panama. Table 20 below utilizes these values in the qualitative matrix to determine the specific site values. All U.S. cities will be rated as a 1 against each other and adopt the rankings above due to the lack of specific supporting data to differentiate between them.

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71 George Thomas Kurian, Encyclopedia of the Third World, Fourth Edition, Vol III (Panama to Zimbabwe), Facts on File, NY, NY, 1992, 1491-1510.

	Panama	NO	Tampa	Miami	PR	Atlanta	Site Value
Panama	1	1/5	1/5	1/5	1/3	1/5	**0.0403**
New Orleans	5	1	1	1	3	1	**0.2194**
Tampa, FL	5	1	1	1	3	1	**0.2194**
Miami, FL	5	1	1	1	3	1	**0.2194**
Puerto Rico	3	1/3	1/3	1/3	1	1/3	**0.0820**
Atlanta, GA	5	1	1	1	3	1	**0.2194**

Table 20.   C - SOUTHCOM 1947-50 Local Environment

h.   *SOUTHCOM 1947 Summary Analysis*

The final results summarized in Table 21 below indicate that New Orleans would have been the best choice for SOUTHCOM's headquarters in the late 1940s, followed closely are Miami and Panama. New Orleans' port gives it the best access to strategic partners. Panama is dominant as a result of its regional engagement score but falls due to transportation scores. This is a singular sub-factor where it dominates and makes the location more competitive. Given the strategic importance of the Panama Canal at this time, a move was not necessary as Panama proved capable of supporting the command with all factors considered.

Factor	Priority (w_j)	Panama (r_iw_{j1})	New Orleans (r_iw_{j2})	Tampa (r_iw_{j3})	Miami (r_iw_{j4})	Puerto Rico (r_iw_{j5})	Atlanta (r_iw_{j6})
A Strategic Access							
A1 USG	0.2313	0.0179	0.0380	0.0450	0.0398	0.0237	0.0670
A2 Strategic Partner	0.0771	0.0063	0.0367	0.0081	0.0081	0.0147	0.0032
A3 Regional Nations	0.2313	0.1221	0.0163	0.0073	0.0261	0.0588	0
B Infrastructure							
B1 Utilities	0.0862	0.0019	0.0196	0.0196	0.0196	0.0058	0.0196
B2 Transportation	0.0543	0.0031	0.0215	0.0083	0.0125	0.0060	0.0029
B3 Cost of Living	0.0228	0.0038	0.0038	0.0038	0.0038	0.0036	0.0038
C Local Environment	0.2970	0.0120	0.0652	0.0652	0.0652	0.0244	0.0652
Score = $\Sigma w_{ix}r_{ijSiteY}$		**0.1671**	**0.2011**	0.1573	**0.1752**	0.1370	0.1617

Table 21.   SOUTHCOM 1947-50 Composite Rankings

C.   SOUTHCOM RELOCATION

1.   Change to Come

This section will apply the AHP combatant command model to the changed conditions of the mid-1990s to assess the relocation decision. In the 1960s, a growing desire for Panamanian independence and increasing violence against U.S. forces stationed in Panama led to a changing political climate necessitating U.S. politicians to negotiate changes in Panamanian policy. This resulted in the planned turnover of the Canal Zone and responsibility for security of the canal as well as the removal of U.S. military forces in the region. Complete turnover of the canal would take place on 31 December 1999. SOUTHCOM was left without a host nation and the search begun to find a new host city.

2. SOUTHCOM Relocation According to AHP

a. A1 - U.S. Government Strategic Access

Data for direct flights between candidate cities and Washington, DC, in 1997 was retrieved from the Bureau of Transportation Statistics (BTS) for U.S. cities and from Department of Transportation, Office of the Assistant Secretary for Aviation and International Affairs website for Panama (www. http://www.bts.gov/xml/ontimesummarystatistics/src/index.xml and http://ostpxweb.dot.gov/aviation/usstatreport.htm#Report respectively). . Atlanta provided the best access to the USG, followed by Miami, Tampa, New Orleans, Puerto Rico, and finally Panama (Table 22).

City, State(Country)	Access to/from D.C. Area Airports (Dulles, Reagan National, BWI), Non-stop flights/day	A1 Site Rank = S1 F/day / ∑(S1 - Sn F/day)
Panama	Negligible[72]	**0.0000**
New Orleans	4.5	**0.0674**
Tampa	9.6	**0.1450**
Miami[73]	20.5	**0.3106**
Puerto Rico	2.9	**0.0440**
Atlanta	28.6	**0.4329**

Table 22.   A1 - SOUTHCOM 1997 USG Access

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72 Data was not available for 1995. The total number of flights between Panama and D.C. area airports was 4 in 1997 and 0 in 1996, all on US carriers. Per DOT reports, this data does not include code share flights with partner airlines. However, significant numbers of flights between the U.S. and Panama occurred between other major airports such as Miami indicating that D.C. was not a main hub and that few direct flights were to D.C.

73 Data includes statistics for Fort Lauderdale International Airport. Similar to Washington, D.C., the Miami Metropolitan Area is served by more than one airport.

b. A2 - Strategic Partner Engagement

On the factor of engaging strategic partners, Miami is ranked first, followed closely by Atlanta and New Orleans (Table 23). The secretariat level IGO/NGO participation in Miami and its strong showing in international level meetings and AOR Trade throughput indicate a high level of engagement with the AOR occurring in the city. Atlanta has similar numbers, but the difference in trade volume brings it to a close second. Note that New Orleans leads in two categories, but due to a lack of data, only two measures were used to determine the final score. The Yearbook of International Organizations, 2003-2004 did not publish data for cities with less than 10 organizations having secretariat level offices residing therein. Calculations only used the columns where data was provided.

A2	AOR Trade (Export/Import) Throughput (in million $) [74]	Hosted IGO's/NGO's Total Secretariat IGO/NGO[75]	NGO/IGO Activity - International Level Meetings[76]	Site Value $\sum$A2 Norms / 3
Panama	1,776	3/37	6	**0.0822**
New Orleans	65,000	ND	36	**0.2291**
Tampa	16,267	ND	ND	**0.0293**
Miami	39,433	2/64	24	**0.2453**
Puerto Rico	34,758	1/49	14	**0.1816**
Atlanta	28,000	0/65	27	**0.2325**
U.S. Totals		291/6848	1145	

Table 23.   A2 - Strategic Partner Evaluation

74 United States, 1999, Statistical Abstract of the United States: 1999 119th Edition) U.S. Census Bureau (Washington, D.C., 1999), 803-817.

75 Union of International Associations, Yearbook of International Organizations Vol 5, 2003-2004 (Munchen, 2004), 85-88.

76 Union of International Associations, Yearbook 2004, 120-127.

c.   *A3 - Regional Nations Engagement*

Miami is clearly a leader on this sub-factor, due primarily to its high level of formal relations, with Panama and New Orleans following closely hosting 19 and 18 consulates respectively (Table 24).   This table indicates a changing diplomatic picture from the earlier period as consulate and embassy presence grew in all locations except Panama.   Panama and Puerto Rico are clearly preferred over U.S. sites on percent populations of Hispanic descent.   These numbers actually reflect the dominance of national populations with no distinct diaspora from other countries in the AOR.   When Miami distinct regional diaspora are measured, it again rises to the top.

City, State (Country)	Embassies and/or Consulates Present[77]	S1a. A3EC Sn/ $\sum$(S1-Sn)	AOR Percent Latin/Hispanic Population of Total Metro Area[78]	S1b. A3%D Sn/ $\sum$(S1-Sn)	Numbers of Distinct Diaspora per Metro	S1c. A3Dia Sn/ $\sum$(S1-Sn)	A3 Rank $\sum$S1a-c/ ($\sum$S1a-c - S6a-c)
Panama	19	0.2000	100	0.3167	0*	0	**0.1925**
New Orleans	18	0.1895	4.1	0.0144	0	0	**0.1438**
Tampa	3	0.0316	22.1	0.0778	4	0.1667	**0.0539**
Miami	25	0.2632	61.3	0.2157	15	0.6250	**0.3015**
Puerto Rico	16	0.1684	98.8	0.3476	0*	0	**0.1683**
Atlanta	14	0.1474	7.9	0.0278	5	0.2083	**0.1399**

Table 24.   A3 - SOUTHCOM 1997 Evaluation of Regional Nation Access

(* indicates a negligible amount of diaspora as census sources were not specific to probable diaspora)

d.   *B1 - Utilities Service*

There are only small differences in utilities services from one potential location to another, largely because four of the six cities are in the same country. *World*

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77 Goabroad.com: Embassies and Consulates, www.embassiesabroad.com (accessed 8 February 2009).

78 U.S. Cities: www.census.gov (accessed 8 February 2009); Puerto Rico and Panama: www.cia.gov (accessed 8 February 2009).

Development Indicators 1997 and subsequent volumes list the Water/Sanitation value for Puerto Rico as "no data." For purposes of evaluation, the author assumes it is no worse than Panama, and assigns it the same value of 100/89 percent availability. Norm values for communication architecture were calculated using a pairwise comparison because of the lack of specific data for the United States cities. Based on the availability and numbers of phones in the U.S. at that time, availability is unlimited and installation occurs within days of requesting. All cities are rated 9 (extreme) over Puerto Rico and 6 (very strong) over Panama. Due to the increased availability in Panama and the shorter waiting times for service, it is rated 5 (strong) over Puerto Rico. The U.S. cities show significant advantage over Panama and Puerto Rico (Table 25).

Factor	Urban Water (1993)[79]/ Sanitation Availability (1990) (percent)[80]	Energy Reliability (Net Energy Imports, Inverse)[81]	Communication Architecture (%total available in largest City)[82]	Wait Time in years to establish (1997)[83]	Ratings $(T_i/\Sigma T_i)$[84]
Panama	100/89	87	67	0.9	**0.0848**
New Orleans	100/100	19	ND	0.0	**0.2105**
Tampa	100/100	19	ND	0.0	**0.2105**
Miami	100/100	19	ND	0.0	**0.2105**
Puerto Rico	100/89	99	16	2.8	**0.0731**
Atlanta	100/100	19	ND	0.0	**0.2105**

Table 25.   B1 - SOUTHCOM Utilities Service Site Factors

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79 World Bank, World Development Indicators: 1997 (Washington DC, World Bank, 1997), 102-105

80 World Bank, World Development Indicators: 2007 (Washington DC, World Bank, 2007), 162-165.

81 World Bank, WDI 1997, 111-112.

82 World Bank, WDI 1997, 272-275.

83 World Bank, WDI 1997, 272-275.

84 The normalization process in this case did not require the intermediate step the model did because the values were of equal comparison. Normalization is required to establish the relative values between 0 and 1 to ensure mathematical calculations are of similar characteristics.

e.   *B2 - Transportation*

Air enplanement and air cargo statistics came from DOT, Office of the Assistant Secretary for Aviation and International Affairs website (available at http://ostpxweb.dot.gov/aviation/usstatreport.htm). The values provided are a two year (1996 and 1997) average using international flights into the host international airports. Sea transport data is the average of 1997 and 1998 using statistics from American Association of Port Authorities, *Port Industry Statistics* (available at http://www.aapa-ports.org/ Industry). Miami has a significant advantage over the other potential locations with over 60 percent of the capabilities. Puerto Rico and Atlanta complete the top three cities (Table 26).

Factor	B2 Air Enplanement (1,000)	B2 Air Enplanement Norm	B2 Air Cargo (tons)	B2 Air Cargo Norm[85]	B2 Sea Transport[86] Container TEUs	Seaport Norm	Transport Cumulative Site Value
Panama	469.2	0.0215	61,267	0.0331	896,626	0.1692	**0.746**
New Orleans	134.4	0.0058	2,636	0.0014	245,238	0.0480	**0.0184**
Tampa	551.0	0.0239	5,104	0.0028	5,343	0.0010	**0.0092**
Miami[87]	15,961.8	0.6929	1,587,147	0.8563	1,499,510	0.2829	**0.6107**
Puerto Rico	2,195.8	0.0953	23,555	0.0127	1,911,647	0.3607	**0.1562**
Atlanta	3,696.3	0.1605	173,711	0.0937	732,668	0.1382	**0.1308**

Table 26.   B2 - SOUTHCOM Transportation Site Factors

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85 The calculation to determine the Airport norm is the result of determining the norm for both enplanement and cargo columns, weighting them equally and totaling the relative values.

86 American Association of Port Authorities, "Port Industry Statistics," http://www.aapa-ports.org/Industry/content.cfm?ItemNumber=900 (accessed 8 December 2008), 1997 Container Import Data only.

87 Transportation statistics include Fort Lauderdale airport and Port Everglades due to close proximity to Miami Metropolitan area.

f. B3 - Cost of Living

The top three locations for cost of living are Tampa, Panama, and New Orleans (Table 27). Country normalized cost of living values are based on 1996-1998 averages. Panama values were obtained from the International Historical Statistics: The Americas (1750-2000) by B. R. Mitchell with a baseline of 1995. Tampa, Miami, and Atlanta data came from the Bureau of Labor Statistics (BLS) (available at http://www.bls.gov/data/) with a baseline of 1982-84. New Orleans data came from the BLS as well; however, specific data was not available and the Southern was based on separate years and calculations using the interest rate calculator allowed for all values to be based in 1996 dollars, the year to which Washington, D.C. was based. The top three locations for cost of living are Tampa, Panama, and New Orleans.

B3 - Cost of Living	Cost of Living Normalized	Inverse (100/B3)	B3 Site Values $(T_i/\Sigma T_i)$
Panama	109.0	0.9174	**0.1854**
New Orleans	116.0	0.8622	**0.1743**
Tampa	121.3	0.8246	**0.1667**
Miami	131.2	0.7620	**0.1540**
Puerto Rico	131.0	0.7634	**0.1543**
Atlanta	122.3	0.8179	**0.1653**

Table 27. B3 - SOUTHCOM Cost of Living Site Data

g. C - Local Environment

Freedom House rankings were evaluated from the time period of 1982 to 1997. United States values are consistent at the most desirable rating of 1 for both political rights (PR) and civil liberties (CL). The Freedom of the World 1997-1998 report indicates that the U.S. is a free country with a "generally free media," declining

criminal trend, and improvement in race and gender equality issues.   Political controversies are of the nature that does not have a propensity to turn violent and the early 1990s witnessed a change in control of the Senate and House of Representatives.[88] Each U.S. location will use the same ranking.

Panama's scores worsened significantly in the middle to late 1980s and then improved in the 1990s (Figure 4.).   It has been rated as free since 1993.   These improvements followed the removal of General Manuel Noriega from power by U.S. military forces in 1989.   Since that time governments have been regularly elected, although Panama continues to be characterized by corruption, drug trafficking, and money laundering.   Legal reforms adopted in 1990 have done little to reduce politicization and corruption in the legal system.   Violence against U.S. military forces continued after the invasion, resulting in the death of an unarmed U.S. soldier in 1992. Media censorship put in place during Noriega's reign remains.[89] Based on the scores and this review, all U.S. locations are rated as 6 (strong plus importance) over Panama.
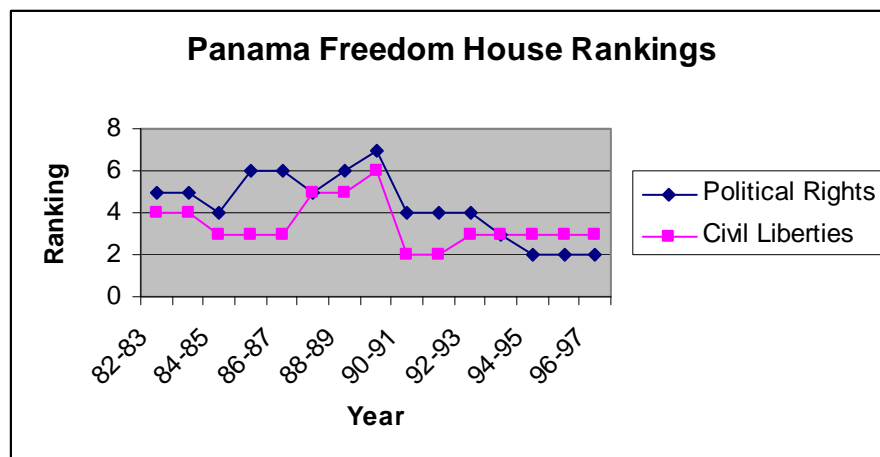
Figure 4.   Panama Freedom House 15-Year Graph

Puerto Rico is more free than Panama, but not as free as the U.S. Freedom House has scored Puerto Rico at 1/1 (PR/CL), 1/2, or 2/1 throughout this period (Figure

88 Adrian Karatnycky, Aili Piano, and Arch Puddington, Freedom in the World:The Annual Survey of Political Rights & Civil Liberties 2003 New York: Freedom House, 2003), 526-529.

89 Karatnycky, Piano, and Puddington, "The Annual Survey 2003," 405-407.

5). As a U.S. commonwealth, Puerto Rican citizens are given the same constitutional protections and civil liberties as U.S. citizens, except for presidential voting and representation in the Congress (Puerto Rico's House delegate votes in committee, but not on the House floor). Puerto Ricans have consistently voted to remain a commonwealth. Crime, corruption, and unemployment are higher in Puerto Rico than the U.S. Local governments' efforts to deal with drug trafficking have led some to charge them with civil   rights abuses.[90] Election violence was largely eliminated during this time period. All U.S. sites are ranked as a 2 (weak) over Puerto Rico and rank Puerto Rico as 4 (moderate plus) over Panama.
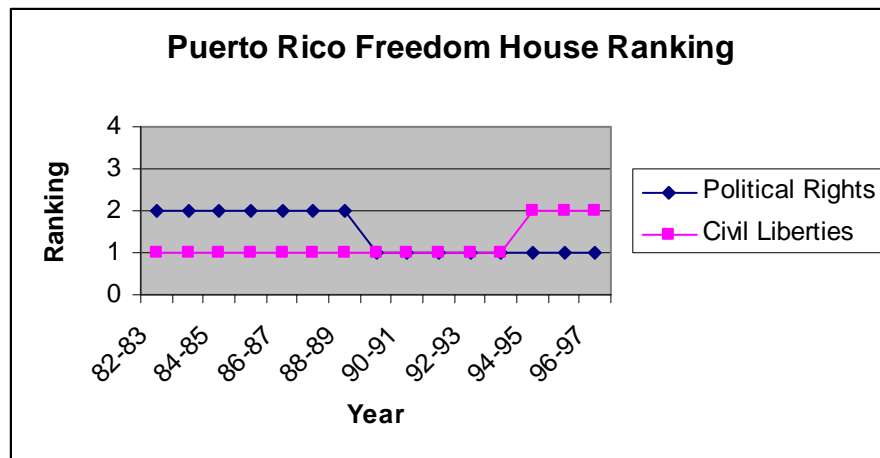
Figure 5.   Puerto Rico Freedom House 15-Year Graph

	Panama	NO	Tampa	Miami	PR	Atlanta	Site Value
Panama	1	1/6	1/6	1/6	1/4	1/6	**0.0340**
New Orleans	6	1	1	1	2	1	**0.2134**
Tampa	6	1	1	1	2	1	**0.2134**
Miami	6	1	1	1	2	1	**0.2134**
Puerto Rico	4	1/2	1/2	1/2	1	1/2	**0.1124**
Atlanta	6	1	1	1	2	1	**0.2134**

Table 28.   C - SOUTHCOM 1997 Local Environment

90 Karatnycky, Piano, and Puddington, "The Annual Survey 2003," 2003, 588-589.

h.   SOUTHCOM 1997Final Results

The two top candidates overall are Miami, followed by Atlanta (Table 29). Miami provides significantly greater engagement with the SOUTHCOM AOR through relations with regional partners and nearly the same as strategic partners, while Atlanta is more accessible to other U.S. government agencies due to its greater flight access and shorter distance. Because of the two airports and seaports in the Miami Metropolitan Area, Miami is favored for its transportation. While not shown in the data sources, transportation to and from the AOR is greater than that which goes through Atlanta.

Compared with SOUTHCOM in 1947, Miami has grown significantly in the areas of regional nation engagement, strategic partner engagement and its expansion as a transportation hub. This growth has resulted in its development as the "Gateway to the America's." All U.S. cities have grown in capabilities to some extent as well, but not at the same pace as Miami. Atlanta is most competitive, but still lacks in specific AOR engagement such as formal channels, business engagement (as indicated by trade), and transportation. The final significant indicator appears to be the lack of growth exhibited by Panama. Its attraction in the 1940s-50s has been overcome by growth across the Southeast United States.

DoD recommended to President William J. Clinton that the command be relocated to Miami. He accepted the recommendation and SOUTHCOM moved into its new headquarters in Miami on 26 September 1997. Miami was chosen as host based on existing infrastructure that reduced initial start-up costs; quality of life for the staff; the city's standing as a cultural, business, and transport hub to the AOR; and the regional consulates located in Miami.[91]

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91 J. Jennings Moss, "Clinton Chooses Miami as New Home of the Military's Southern Command," *The Washington Times*, Part A, NATION, 30 March 1995, A4 ; Jim Hampton, "Look for Politics to Outweigh Merits of Sites for SOUTHCOM," *Tampa Tribune*, NATION/WORLD, 7 February 1995, p 9.

Factor	Priority (w_j)	Panama $(r_i w_{j1})$	New Orleans $(r_i w_{j2})$	Tampa $(r_i w_{j3})$	Miami $(r_i w_{j4})$	Puerto Rico $(r_i w_{j5})$	Atlanta $(r_i w_{j6})$
A Strategic Access							
A1 U.S. Government	0.2313	0.0000	0.0156	0.0335	0.0718	0.0102	0.1001
A2 Strategic Partner	0.0771	0.0063	0.0177	0.0023	0.0189	0.0140	0.0179
A3 Regional Nations	0.2313	0.0445	0.0333	0.0125	0.0697	0.0389	0.0324
B Infrastructure							
B1 Utilities	0.0862	0.0073	0.0181	0.0181	0.0181	0.0063	0.0181
B2 Transportation	0.0543	0.0041	0.0010	0.0005	0.0332	0.0085	0.0071
B3 Cost of Living	0.0228	0.0042	0.0040	0.0038	0.0035	0.0035	0.0038
C Local Environment	0.2970	0.0101	0.0634	0.0634	0.0634	0.0334	0.0634
Score = $\Sigma w_{ix} r_{ijSiteY}$		0.0765	**0.1530**	0.1341	**0.2787**	0.1148	**0.2428**

Table 29. SOUTHCOM 1997 Final Rankings

i. SOUTHCOM Overview

Policy statements by General Charles Wilhelm indicated 3 years after the move that Miami should be the permanent site for the command.[92] SOUTHCOM continues to work out of leased buildings not specifically designed for it and is in plans to break ground on a new command in the future. SOUTHCOM's performance in Miami has not been hampered in the way that it was in Quarry Heights, Panama where martial law had to be imposed and an invasion was conducted.

Both models separate out wishful locations from serious contenders that support the requirements of a command's location. The top two or three candidates typically are within close rankings to each other, each with its own strong points as to where the command should be positioned. This indicates that there may be a few "right"

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92 Charles Wilhelm, "Posture Statement of General Charles E. Wilhelm, United States Marine Corps, Commander In Chief, United States Southern Command," http://ftp.fas.org/irp/congress/2000_hr/00-03-23wilhelm.htm, March 2000, (accessed 25 November 2008).

choices. Given that DoD operates with structure, significant logistical support, and a "can-do" attitude, any of the top locations would likely be appropriate. What is significant is the gap between the top few contenders and the lower contenders. By executing a thorough application of the decision making process, it is conceivable that decisions of this nature can be made quicker and more efficient. SOUTHCOM itself highlighted its location as the "ideal location" from which to operate. Retired General Barry McCaffrey highlighted SOUTHCOM's location as perfect on its 10 year anniversary. "For its part, Southcom has greatly benefited from being in South Florida. Geographically, the command is perfectly located to respond to future security challenges across the Americas. The cultural and intellectual diversity of the city is the perfect setting for Southcom."[93] It has provided a perfect location from which to increase its security assistance activities, exercises, and host training seminars, conferences, and other exchanges in support of its missions.

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93 Barry R. McCaffrey, "SOUTHCOM, 10 Years in S. Florida," *The Miami Herald*, 22 September 2007, A21.

IV. UNITED STATES AFRICAN COMMAND: LOCATION ANALYSIS AND CONSIDERATIONS

A. CANDIDATE LOCATIONS

AFRICOM's requirements center on its anticipated mission areas of engagement with government agencies and international partners utilizing security assistance activities. To date, several sites have been mentioned as serious potential locations for AFRICOM ranging from locations in Africa to Europe and the continental U.S. At the initial notification, several sites in Africa were under consideration: South Africa, Kenya, Nigeria, Liberia, Morocco, Ethiopia, and a few others. Liberia is the only African country to offer to host the command and is therefore included in the analysis. Morocco and Kenya are also included because they were considered strong potential locations, although they declined to host the command.

Also included is AFRICOM's current location in Stuttgart. Data concerning Stuttgart includes nearby airport and seaport facilities such as Frankfurt or Mannheim/Ludwigshafen in similar fashion as Baltimore is to Washington, DC. Two U.S. cities have been publicly identified as possible sites for AFRICOM headquarters, Atlanta and Charleston and these are therefore included in the analysis. One additional U.S. city is considered: the New York Metropolitan area because of its significant cultural makeup as a world trade center and financial capital. Thus, this analysis includes seven possible locations, three in Africa, one in Europe, and three in the United States. These seven locations provide a broad cross-section of available locales from major metropolitan areas to developing continental locations.

B. ANALYSIS

1. A1 - USG Access

Direct flight access is provided via the U.S. Department of Transportation through two different bureaus. Domestic flight information is provided via the Bureau of Transportation Statistics and international information is provided via the Office of the

Assistant Secretary for Aviation and International Affairs.[94] Airport data for New York includes JFK, La Guardia, and Newark, NJ Airports and Stuttgart, Germany includes Stuttgart and Frankfurt A.M. airports. This is similar to Washington, D.C. being served by nearby airports expanding the transportation volume supporting the region. New York metropolitan area, Atlanta, and Southern Germany are the leading locations that provide the most direct access to the U.S. capital. New York and Germany gain this access in large part to service by multiple airports. Nairobi, Kenya, Rabat, Morocco, and Monrovia, Liberia are limited in direct access to Washington, D.C. This category does not take into account the difference in flight time going direct from an overseas location to Washington. However, in the event of two closely rated sites, the closer site should receive greater consideration.

This sub-factor shows the lack of availability of convenient travel between the African sites and Washington, DC.

City, State (Country)	Access to/from D.C. Area Airports (Dulles, Reagan National, BWI) Direct non-stop flights/day	A1 Site Value = S_1 F/day / $\sum (S_1 - S_n$ F/day$)$
Nairobi, Kenya	0	**0.0000**
Rabat, Morocco	0	**0.0000**
Monrovia, Liberia	0	**0.0000**
Stuttgart, Germany	9.0	**0..1777**
Charleston	1.15	**0.0227**
Atlanta	16.9	**0.3341**
New York	23.6	**0.4656**

Table 30.   A1 - AFRICOM USG Access Table

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94 United States Department of Transportation, Bureau of Transportation Statistics, http://www.bts.gov/xml/ontimesummarystatistics/src/index.xml (accessed 27 February 2009); United States Department of Transportation, Office of the Assistant Secretary for Aviation and International Affairs, http://ostpxweb.dot.gov/aviation/usstatreport.htm#Report (accessed 27 February 2009).

2.   A2 - Strategic Partner Engagement

Potential AFRICOM locations provide wide variation on ease of engagement with strategic partners (Table 31). New York has a sizable advantage over all other locations in trade numbers alone, but when the two other elements in the sub-factor are considered, Stuttgart becomes very competitive.   Despite a significant showing with hosted IGO/NGO headquarters, Nairobi falls short due to the number indicator for trade and business headquarters.   Atlanta indicates some activity as a host city for international symposia and enjoys significant trade and business. Of note is the fact that this trade includes activity in Savannah, Georgia. Due to their geographic proximity, both Atlanta and Savannah are considered by the U.S. as part of the same customs district and therefore trade through this area covers both cities with Atlanta being the larger metropolitan area while Savannah is the seaport facility.

	AOR Trade Throughput (3 yr avg 2005-2007) (Export/Import) (in million \$) [95]	Hosted IGO's/NGO's Total Secretariat IGO/NGO [96]	NGO/IGO Activity - International Level Meetings [97]	Site Value ∑A2 Norms / 3
Nairobi, Kenya	921	51/242	41	**0.0929**
Rabat, Morocco	1,441	17/57	27	**0.0494**
Monrovia, Liberia	186	0/0	0	**0.0001**
Stuttgart, Germany	131,050	61/1715	135	**0.4655**
Charleston	49,867	0/0	0	**0.0296**
Atlanta	82,567	0/0	17	**0.0748**
New York	295,200	192/897	129	**0.4831**
U.S. Totals		363/8190	8553	

Table 31.   A2 - AFRICOM Strategic Partners

3.   A3 - Partner Nation Access

Sources for partner nation access in Africa have a moderate degree of fidelity, more so for locations in the U.S. and Kenya. Because both North Africa and sub-Saharan Africa fall under AFRICOM's AOR, the AOR percent figures for U.S. cities includes those distinct census data that highlight, Moroccan and North African populations. New York leads this sub-factor due to its significant number of formal links to AOR countries and its attraction as a major metropolis and port of entry for immigrants (Table 32).

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95 United States, Statistical Abstract of the United States 2009, 128th edition, US Department of Commerce, Bureau of Census (Washington, D.C., 2009), 790-793.

96 Union of International Associations, Yearbook of International Organizations Vol 5, 2006-2007 (Munchen, 2007), 61-86.

97 Union of International Associations, Yearbook 2007, 108-117.

Kenya is similarly high as indicated by the significant numbers of embassies. These numbers do not account for undocumented immigrant populations which may significantly alter the percentages.

City, State (Country)	Embassies and/or Consulates Present[98]	S1a. A3EC Sn/ ∑(S1-Sn)	AOR Percent Population of Total Metro Area [99]	S1b. A3%D Sn/ ∑(S1-Sn)	Numbers of Distinct Diaspora per Metro [100]	S1c. A3Dia Sn/ ∑(S1-Sn)	A3 Rank ∑S1a-c/ (∑S1a-c - S6a-c)
Kenya	16	0.2353	99.0	0.2653	8	0.2286	**0.2382**
Morocco	11	0.1618	98.7	0.2645	2	0.0571	**0.1615**
Liberia	2	0.0294	95.0	0.2546	3	0.00857	**0.0646**
Germany	10	0.1471	0.40	0.0011	1	0.0286	**0.1140**
Charleston	0	0	31.3	0.0838	0	0	**0.0105**
Atlanta	7	0.1029	30.5	0.0816	10	0.2857	**0.1231**
New York	22	0.3235	18.3	0.0491	11	0.3143	**0.2881**

Table 32.   A3 - AFRICOM Partner Nation Access

4.   B1 - Utilities

Utility indicators for AFRICOM come from two main sources, the World Bank and the International Telecommunications Union (ITU), Geneva, Switzerland. Data from the World Bank in the *World Development Indicators 2008* edition is used to determine

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98 Goabroad.com: Embassies and Consulates, www.embassiesabroad.com (accessed 21 February 2009).

99 US Cities: www.census.gov (accessed 21 February 2009); international cities: www.cia.gov (accessed 21 February 2009).

100 US Cities: www.census.gov (accessed 21 February 2009). International cities: www.cia.gov (accessed 21 February 2009); www.epodunk.com (accessed 21 February 2009); Kenyaembassy.com\diaspora (accessed 21 February 2009); Morrocancongress.org (accessed 21 February 2009); nationmaster.com (accessed 21 February 2009).

the water and sanitation values and is focused on the urban environment. Communication architecture development is provided by the ITU Information and Communication Technology statistics webpage. This website provided statistics for all locations under consideration and provides a broader picture of the communication architecture in each city.

The World Bank World Development Indicators (WDI) provides data on energy reliability for only two of the seven locations as a measurement of the percentage of the total population with access to electricity. Data was not provided for Germany, Liberia, or the United States. Specific values are provided for the total population and these are therefore likely skewed lower due to the fact that a command will be located in an urban setting where electricity availability is certainly higher. Because of the lack of precise data, energy reliability norms will be determined through quantitative analysis using available WDI reliability numbers and net energy imports in concert with a quantitative review.

Due to the size of the pairwise comparison matrix (seven by seven or 42 direct comparisons), only significant comparisons are highlighted. The remainders are provided in Table 33. The World Bank does not provide total reliability percentages for Germany or the United States. However, the author assumes 100 percent availability for both locations based on the fact that commands in these locations currently function with 100 percent availability. With this assumption and a thirty percent energy import rating, U.S. locations are rated a value of 2 (weak importance) over Germany. Kenya and Morocco are the only cities with both data points for energy reliability. Due to its greater percent in total access, Morocco is rated as 4 (moderate plus) over Kenya. Liberia is the only country where neither energy indicator is available. It is the least capable of the seven locations in providing energy as a result of its recent history of conflict. While President Johnson-Sirleaf has made progress in stabilizing the country, the infrastructure and development of energy is lagging. This will require a significant amount of development and time to achieve a level of power generation necessary to support the country and additionally the command.

	Kenya	Morocco	Liberia	Germany	Charleston	Atlanta	New York	Site Value
Kenya	1	1/4	3	1/5	1/6	1/6	1/6	**0.0367**
Morocco	4	1	5	1/4	1/5	1/5	1/5	**0.0689**
Liberia	1/3	1/5	1	1/7	1/8	1/8	1/8	**0.0217**
Germany	5	4	7	1	1/2	1/2	1/2	**0.1529**
Charleston	6	5	8	2	1	1	1	**0.2400**
Atlanta	6	5	8	2	1	1	1	**0.2400**
New York	6	5	8	2	1	1	1	**0.2400**

Table 33.   AFRICOM Energy Pairwise Comparison

Factor	Urban Water / Overall Sanitation Availability (percent)[101]	Norm	Communication Architecture (main phoneline/ mobile subscribers/ Internet users per 100 people)[102]	Norm	Energy Reliability (Total Population Access[103]/% Energy Imports)[104]	Norm	Ratings ($T_i/\Sigma T_i$)
Nairobi	83/46	0.0673	0.7/30.2/8.0	0.0305	8%/19%	**0.0367**	**0.0448**
Rabat	99/88	0.1288	7.7/64.2/21.1	0.0778	71%/93%	**0.0689**	**0.0918**
Monrovia	72/49	0.0717	0.1/15.0/0.5	0.0111	ND/ND	**0.0217**	**0.0348**
Stuttgart	100/100	0.1464	65.1/117.6/72.0	0.2502	ND/61	**0.1529**	**0.1832**
Charleston	100/100	0.1464	53.4/83.5/72.5	0.2102	ND/30	**0.2400**	**0.1989**
Atlanta	100/100	0.1464	53.4/83.5/72.5	0.2102	ND/30	**0.2400**	**0.1989**
New York	100/100	0.1464	53.4/83.5/72.5	0.2102	ND/30	**0.2400**	**0.1989**

Table 34.   B1 - AFRICOM Utilities Site Values

101 World Bank, World Development Indicators: 2008 (Washington DC, World Bank, 2008), 98-101, 146-149.

102 International Telecommunication Union, www.itu.int/itu-d/icteye/indicators/indicators.aspx (accessed 28 February 2009).

103 World Bank, World Development Indicators 2004 (Washington DC, World Bank, 2004), 148-151

104 World Bank, WDI 2008, 158-161.

5. B2 - Transportation

The data analysis gives New York a significant advantage in the transportation arena. Atlanta and Stuttgart follow distantly (Table 35). Air transport data is biased toward direct transport between the U.S. and the potential location. It does not account for passengers or cargo that transfers in transit to different airlines at intermediate airports such as Amsterdam (e.g., Kenyan Airlines to KLM).

Factor	B2 Air Enplanement[105] (1,000)	B2 Air Enplanement Norm	B2 Air Cargo[106] (tons x1,000)	B2 Air Cargo Norm	B2 Sea Transport[107] Container TEUs (x1000)	Seaport Norm	Transport Cumulative Site Value
Nairobi	0	0	0	0	380.4[108]	0.0480	**0.0160**
Rabat	118	0.0025	2.2	0.0011	561	0.0707	**0.0248**
Monrovia	0	0	0	0	30[109]	0.0038	**0.0013**
Stuttgart	6766	0.1419	476.4	0.2345	87[110]	0.0110	**0.1291**
Charleston	1.8	0	28.2	0.0139	1,488	0.1876	**0.0672**
Atlanta	8756	0.1836	290.6	0.1430	1,574	0.1984	**0.1750**
New York	32,051	0.6720	1,234.1	0.6075	3,811	0.4805	**0.5867**

Table 35.   B2 - AFRICOM Transportation Site Factors

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105 DOT, "U.S. International Air Passenger and Freight Statistics Report," http://ostpxweb.dot.gov/aviation/usstatreport.htm (accessed 2 March 2009), reports used 2008, 2007, and 2006 for passenger statistics.

106 DOT, "U.S. International Air Passenger and Freight Statistics Report."

107 World Bank WDI 2008, 300-303; United States, Statistical Abstract of the United States: 2009,128th Edition Washington, D.C. 2008), 661. Additional data is provided as noted.

108 Sean Gibson, 2005. *Ports and Terminals Guide* 2005-2006. Redhill, Surrey [etc.]: Lloyd's Register - Fairplay, 2-1133.

109 Gibson, *Ports and Terminals Guide,* 2-1223.

110 Gibson, *Ports and Terminals Guide,* 2-344-352. This data includes the ports of Karlsruhe and Mannheim-Ludwigshafen which are in geographic proximity to Stuttgart.

6.   B3 - Cost of Living

U.S. cities urban areas measure relative price levels of consumer goods and services for mid-management standards of living comparing prices at a single point in time. State Department living costs abroad are comparisons of goods and services between overseas posts and Washington, D.C. This comparison is used to establish a relative weight between foreign locations and U.S. locations in broad terms. Both sources provide data meant for comparison at a single point in time, January 2007. Values for cost of living are inverted because a lower value is better; inverting the value results in a higher value mathematically for use in the model. Therefore, Atlanta and Charleston with the lower two values have higher site values for the final calculations.

B3 - Cost of Living	Cost of Living Relative to Washington D.C. [111]	Inverse (1/B3)	B3 Site Values ($T_i/\Sigma T_i$)
Nairobi	1.2700	0.7874	**0.1198**
Rabat	1.3800	0.7246	**0.1102**
Monrovia	1.3500	0.7407	**0.1127**
Stuttgart	1.4600	0.6849	**0.1042**
Charleston	0.7068	1.4149	**0.2152**
Atlanta	0.6888	1.4519	**0.2208**
New York	1.2994	0.7696	**0.1171**

Table 36.   B3 - AFRICOM Cost of Living Site Data

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[111] United States Department of State Bureau of Administration Office of Allowances, "Indexes of Living Costs Abroad, Quarters Allowances, and Hardship Differentials January 2007," 2-6. "Statistical Abstract of the United States 2008: The National Data Book" (Bernan Assoc. (2008), 473-475. Stuttgart data provided is from Frankfurt A.M., the nearest listed city to Stuttgart Both values measure the cost of representative goods and services and a ration determined using Washington, D.C. as the common denominator.

7.   C - Local Environment

The United States received consistent scores of 1 for political rights (PR) and civil liberties (CL) from 1993 to 2008. During this time the U.S. has changed control of the executive and legislative branches twice. During these election periods, political rhetoric has been heated at times; however, no violence has been experienced. The two dominant political parties continue to debate several issues such as immigration, the economic crisis, and infringement on civil rights as a result of the Patriot Act. U.S. political stability is solid despite the heated debates on these issues. Minority populations in the U.S. are expanding and gaining influence on policy and civil rights matters.   The U.S. continues to enjoy peaceful transitions of power.

Figure 6 shows the trend for Kenya's Freedom House scores. Kenya has had a status of *not free* for the majority of this time period until 2002 when it improved to partly free where its overall status remains. During this time frame, Freedom House scores have increased and decreased on a generally improving trend.   Political development in Kenya has been marked by violence and oppression during this time, particularly in the 1990s. In the early 2000s, peaceful expectations rose; however, daily events and elections continued to be marred corruption. 2005 witnessed the acceptance of a new constitution, yet corruption allegations surfaced in 2006 at high levels in the government. During the 2007 elections, the situation appeared to be set for a change in government as the opposition appeared to be gaining ground. Flawed elections set the stage for violence that erupted between opposition and ruling party ethnic bases, threatening political stability and raising concerns about genocide. However, Kenya appears to have returned to a status quo ante, though latent tensions certainly remain.
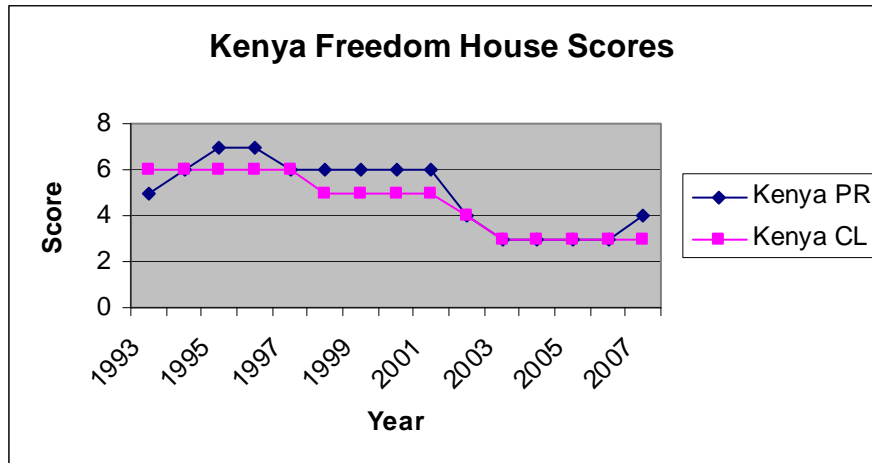
Figure 6.   Kenya Freedom House 15-Year Graph

Morocco is at a significant juncture in its political development. It has been steady in the 5/4 to 5/5 range since 1993. The enthronement of King Mohammed VI upon the death of his father in 1999 raised expectations for improved political and civil rights. The young king has opened, but more slowly than observers had hoped. Power still rests with the king, although parliamentary representation by popular vote continues to improve. Civil liberties have improved faster than political rights. The government continues to monitor extremist religious groups and journalists, among others, which result in police action and self-censorship. As Morocco gains more freedom, instability and insecurity may increase.
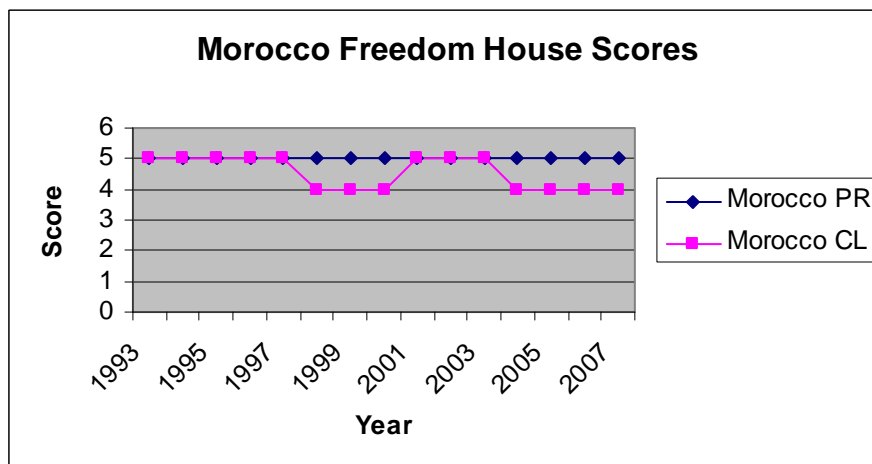

Figure 7.   Morocco Freedom House 15-Year Graph

Liberia shows the most changes and therefore unpredictability in PR/CL scores during this timeframe. The country has experienced civil war, followed by increased stability, followed by reversion to war, and yet another period of increased stability following the election of President Johnson-Sirleaf with the support of a large UN peacekeeping presence. Liberia's most infamous personality, Charles Taylor, is on trial or war crimes in The Hague. President Johnson-Sirleaf has attempted in address the corruption endemic in the country and establishes a basis for rapid political development and infrastructure improvement; much of which relies on the assistance of outside benefactors.[112] Many of the underlying factors that aggravated the conflict during Taylor's reign still remain, such as ethnic conflict and the "culture of corruption." Significant work remains before Liberia can be considered a stable and supportive location.
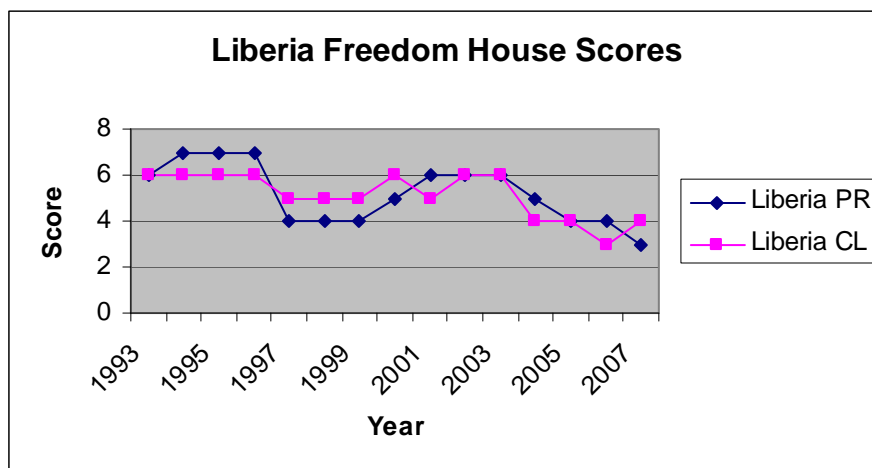
Figure 8.   Liberia Freedom House 15-Year Graph

Germany is a stable country capable of hosting a combatant command. Its Freedom House scores of 2/1 indicate it promotes political rights and civil liberties expected in a free society. Germany has experienced minor political violence since 1993. Political parties have significant freedom within extreme boundaries with extremist parties on either side of the political spectrum being legally restricted.

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112 Freedom House Online, Liberia 2008 Overview, http://www.freedomhouse.org/template.cfm?page=22&year=2008&country=7432 (accessed 28 February 2009).

Germany Freedom House Scores

Figure 9.   Germany Freedom House 15-Year Graph

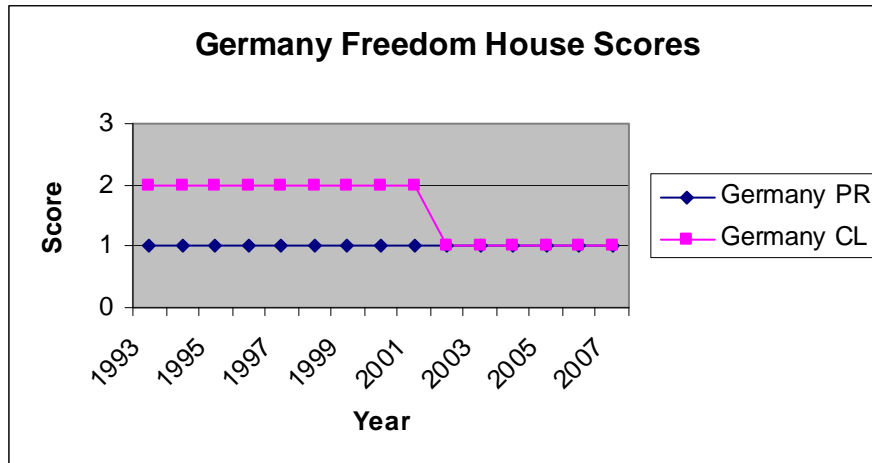Three essential sub-groups break out in the final Local Environment site values. The first group, the United States cities and Stuttgart are identical in their stability and security and are rated 1 (equal importance) by pairwise comparison with each other. The next sub-grouping is Kenya and Morocco, each experiencing low levels of violence in recent years. Kenya receives a higher rating based on its greater freedoms and greater experience with democracy, despite recent political violence. It is rated as 3 (moderate) vis a vis Morocco. The first group is rated 5 (strong) to 6 (very strong) versus the second group. Liberia is in a class of its own based largely on its unpredictability. Despite the same scores as Kenya, it has had a significantly more volatile road during the last 15 years with significant changes twice during this timeframe whereas Kenya has been generally steady and is rated as 4 (moderate plus) over Liberia. By comparison, Liberia receives better Freedom House scores than Morocco, but Morocco has shown greater stability and receives a ranking of 2 (weak) over Liberia. Sub-group one is rated as 8 over Liberia.

	Kenya	Morocco	Liberia	Germany	Charleston	Atlanta	New York	Site Value
Kenya	1	3	4	1/5	1/5	1/5	1/5	**0.0606**
Morocco	1/3	1	2	1/6	1/6	1/6	1/6	**0.0347**
Liberia	1/4	1/2	1	1/8	1/8	1/8	1/8	**0.0232**
Germany	5	6	8	1	1	1	1	**0.2204**
Charleston	5	6	8	1	1	1	1	**0.2204**
Atlanta	5	6	8	1	1	1	1	**0.2204**
New York	5	6	8	1	1	1	1	**0.2204**

Table 37.   C - AFRICOM Local Environment Site Values

8.   AFRICOM Composite Scores

New York is clearly the strongest contender of potential sites to host AFRICOM when all requirements of a combatant command are considered. It leads in the strategic access factor enabling the command to have greater access to USG and strategic partners, than any of the other contending sites by a large margin. Based on the number of consulates and embassies in New York, it has strong formal relations with which to engage partner governments.   Its infrastructure is highly diverse and capable of supporting the command; however, it is the most costly place to live in the U.S.   Atlanta offers the next greatest level of capabilities followed closely by Stuttgart.

According to this analysis, the command should not be positioned on the continent of Africa. African locations do not offer the USG access or supporting infrastructure necessary to attract and enable the command to function at the strategic level. Indeed, African locations are only competitive with non-African locations for regional nation engagement factor. Given that the command requires greater access and support in which to execute its mission, the composite indicators point to New York as the location of choice.

Factor	Priority (w_j)	Kenya (r_iw_{j1})	Morocco (r_iw_{j2})	Liberia (r_iw_{j3})	Southern Germany (r_iw_{j4})	Charleston (r_iw_{j5})	Atlanta (r_iw_{j6})	New York (r_iw_{j7})
A Strategic Access	0.2313	0.0000	0.0000	0.0000	0.0411	0.0053	0.0773	0.1077
A1 U.S. Government	0.0771	0.0072	0.0038	0.0000	0.0359	0.0023	0.0058	0.0372
A2 Strategic Partner	0.2313	0.0551	0.0374	0.0149	0.0264	0.0024	0.0285	0.0666
A3 Regional Nations								
B Infrastructure								
B1 Utilities	0.0862	0.0039	0.0079	0.0030	0.0158	0.0171	0.0171	0.0171
B2 Transportation	0.0543	0.0087	0.0013	0.0001	0.0070	0.0036	0.0095	0.0319
B3 Cost of Living	0.0228	0.0027	0.0025	0.0026	0.0024	0.0049	0.0050	0.0027
C Local Environment	0.2970	0.0180	0.0103	0.0069	0.0655	0.0655	0.0655	0.0655
Score = $\Sigma w_{ix}r_{ijSiteY}$		0.0955	0.0632	0.0275	**0.1940**	0.1011	**0.2087**	**0.3287**

Table 38.   AFRICOM Final Values

C.   CONCLUSION

AFRICOM's final location decision requires focused, dedicated analysis to ensure its location allows the command to perform. The final location must enable and enhance its performance at the strategic level, operational level considerations are best addressed through its components which require separate analyses as their factors will be focused on different requirements. Initial decisions were optimistic that the welcome mat would be opened and location statements were published too early in the process. In AFRICOM's short history; it has retreated from initial statements that indicated a continental location was a must in order for it to succeed, to establishing a temporary headquarters in Stuttgart due to resistance from African nations, and finally, commitment to a thorough analysis of potential locations, U.S. or otherwise. The final decision has

been put off until 2012. This timeframe allows for a methodical approach to determine the best manner in which to approach this decision. The model presented in this thesis provides a solid, analytical tool for that purpose. As indicated by Yang and Lee and the business community, the success of a headquarters relies heavily on its location. This decision is complex and has a large number of variables to consider. The differences between the business and military communities have been taken into account by this model and refocused to address the unique military and governmental requirements. DoD has utilized business practices and tools to become more efficient. An important decision such as the location of its newest combatant command should be no different and utilize tools that enable these decisions. The command's performance is not about the bottom line of profit, but the bottom line of strategy and policy development with the aim of providing security and stability assistance to assist U.S. partners and interests.

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